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A STUDY OF THE RELATIONSHIP BETWEEN ELEMENTARY TEACHER
ABSENTEEISM AND THE ACHIEVEMENT OF ELEMENTARY PUPILS
IN READING AND MATHEMATICS

By

David B. Smith

A DISSERTATION

Submitted to
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in partial fulfillment of the requirements
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Department of Educational Administration

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ABSTRACT

A STUDY OF THE RELATIONSHIP BETWEEN ELEMENTARY TEACHER ABSENTEEISM AND THE ACHIEVEMENT OF ELEMENTARY PUPILS IN READING AND MATHEMATICS

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David B. Smith

The financial loss resulting from employee absenteeism has been estimated at between \$15 and \$20 billion per year. In addition, there appears to be consensus that employee absenteeism also results in reduced productivity. However, there is little information regarding teacher absence and the educational effect of such absence.

This study was designed to examine absenteeism rates for elementary teachers during two years and to determine if a relationship exists between absenteeism and student achievement, as measured by standardized norm-referenced reading and mathematics tests. The study addressed the following specific concerns: (1) the relationship of elementary pupil (grades 1-6) achievement in mathematics to teacher absenteeism, as measured by total days absent and absence frequency and (2) the relationship of elementary pupil (grades 1-6) achievement in reading to teacher absenteeism, as measured by total days absent and absence frequency.

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The study was constructed to examine the total elementary grades (1-6) as one group and each elementary grade as a separate group. The findings of the study were:

1. For all elementary grades (1-6) there did not appear to be a relationship between teacher absenteeism and pupil achievement in reading or mathematics for 1980/81.

2. For all elementary grades (1-6) there appeared to be a relationship between teacher absenteeism and pupil achievement in reading and mathematics for 1981/82.

3. For grades 1, 5, and 6 there did not appear to be a relationship between teacher absenteeism and pupil achievement in either reading or mathematics for 1980/81 or 1981/82.

4. For grade 2 there appeared to be a relationship between teacher absenteeism and pupil achievement in reading for 1981/82, and in mathematics for 1980/81 and 1981/82.

5. For grade 3 there appeared to be a relationship between teacher absenteeism and pupil achievement in reading for 1981/82.

6. For grade 4 there appeared to be a relationship between teacher absenteeism and pupil achievement in reading for 1981/82, and in mathematics for 1981/82.

This dissertation is dedicated to my
wife, Joan, and our children, Anne and
David, whose constant support made this
project possible.

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CHAPTER I

THE PROBLEM

Background of the Problem

Much has been written about the day-to-day absence of students and the effects of continued or excessive absenteeism on the learning process. Wiley summarized the effect of student absenteeism; he stated, "If schooling has an influence on a child, it does so on a day-to-day basis, when the child is present and subject to that influence, and cannot influence the child when the child is not there."¹ If the child's attendance is important to the learning process, what role does the regular classroom teacher play in the entire learning process? Very little seems to have been written about the absence of teachers from their classrooms and the effect of such absence on the pupils they teach. Thus research on educational absenteeism is important in terms of pupil achievement. It is also necessary in terms of economic costs when school districts examine ways in which to reduce expenditures.

Considerable research has been conducted on employee absenteeism rates in the private sector. During 1978, according to

¹David E. Wiley, "Another Hour, Another Day: Quantity of Schooling, a Potent Path for Policy," in Schooling and Achievement in American Society, ed. William H. Sewell, Robert M. Hauser, and David L. Featherman (New York: Academic Press, 1975).

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Scott and Markham, the national rate of employee absenteeism was 3 percent.² This means that on any given day 3 percent of the scheduled work force did not show up for work. In an earlier report, Steers and Rhodes reported that an estimated 400 million work days are lost in the United States each year because of employee absenteeism--about 5.1 days per employee.³ As recently as November 1981, the Monthly Labor Review reported that, during a typical week, about five million workers are absent from their jobs.⁴ These are employees who have a job but are not at work for the entire week because of vacations, illnesses, and other reasons.

The American Society for Personnel Administration reported that in 1978 the absenteeism rate for scheduled employees was 3 percent, but by 1980 this rate had fallen to 2.7 percent, and by 1981 it had been reduced even further--to 2.4 percent.⁵ In addition, the Society reported that in 1982 the absenteeism rate was still declining and was likely to be reported as 2.1 percent.

This continued decline in employee absenteeism can be documented by a review of the average monthly absentee rates, as

²Dow Scott and Steve Markham, "Absenteeism Control Methods: A Survey of Practices and Results," Personnel Administrator 27 (June 1982): 73.

³Richard M. Steers and Susan R. Rhodes, "Major Forces on Employee Attendance: A Process Model," Journal of Applied Psychology 63,4 (1978): 391-407.

⁴Carol Boyd Leon, "Employed But Not at Work: A Review of Unpaid Absences," Monthly Labor Review (November 1981): 18-22.

⁵"Job Absence and Turnover," Bulletin to Management (The Bureau of National Affairs, Inc.), December 16, 1982, p. 2.

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reported by the Bureau of National Affairs (BNA).⁶ In December 1982, the BNA reported the following average monthly absentee rates for scheduled work time:

1981--2.4 percent
1980--2.6 percent
1979--2.9 percent
1978--2.9 percent

Even though the rate of absenteeism is declining, it continues to be a large expenditure for American employers. Breaugh reported that the estimated annual cost of absenteeism to organizations is between \$8.5 and \$26.4 billion.⁷ Such cost becomes an even greater concern when one considers the expense of employee replacement. Steers and Rhodes estimated that, in 1977, the per-day absence cost of an employee was \$66.⁸ This estimate included direct salary, fringe-benefit costs, and temporary employee-replacement costs.

Within education, employee absenteeism appears to have increased recently, even though absenteeism in the private sector has shown a decline. Elliott and Manlove reported that teacher absences recently have increased dramatically in many American school systems. They went on to say that "increased absences come with more generous sick leave policies bargained with teacher groups. When the regular

⁶Ibid., p. 2.

⁷James A. Breaugh, "Predicting Absenteeism From Prior Absenteeism and Work Attitudes," Journal of Applied Psychology 66,5 (1981): 555-60.

⁸Steers and Rhodes, op. cit., p. 391.

teacher is absent, there are major costs, both instructional and financial."⁹

Writing about student and teacher absenteeism, Bamber indicated that there is no national monitoring of teacher absenteeism, which hinders the collection of data specifically related to teachers. But she stated that, as of May 1976, education employees were absent 3.6 percent of the time, which means that 86,000 classrooms per day were not being taught by the regular teacher.¹⁰

For the past three years, Michigan school districts have been forced, because of growing expenditure levels and reduced revenues with which to meet these demands, to review all expenditure or cost centers and to consider cost reductions and the implications of such reductions. These reductions have often resulted in cutting, or in some cases completely dropping, programs and services designed for students.

Examination of the Lansing School District's 1981/82, 1982/83, and proposed 1983/84 budgets showed that more than \$400,000 was spent yearly for substitute teachers during 1981/82 and 1982/83, and nearly \$500,000 is projected for 1983/84.¹¹ These figures do not take into account the cost of lost teaching time (that is, the salary paid to

⁹Peggy G. Elliott and Donald C. Manlove, "The Cost of Skyrocketing Teacher Absenteeism," Phi Delta Kappan 59 (December 1977): 269-70.

¹⁰Chrissie Bamber, Student and Teacher Absenteeism, Fastback 126 (Bloomington, Ind.: Phi Delta Kappa Educational Foundation, 1979), p. 15.

¹¹"Lansing School District Budget Projection 1983/84," compiled by the Finance Department, Lansing School District, June 1983.

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the absent teacher) but only the expense of replacing absent teachers. This expenditure level means that more than one-half of 1 percent (.006) of the budget is being devoted to paying substitute teachers each school year. Thus it can be seen that absenteeism is a large expenditure item for employers in general and for the Lansing School District in particular.

In addition to simply calculating the costs associated with absenteeism, a number of researchers have considered absenteeism rates, or the percentage of time employees are not at work, and the resulting effect on the job being performed.¹² Because teaching is an activity that relies almost exclusively on teacher-pupil interaction, it seems that the amount of absence of either the teacher or the student would have an effect on learning.

This very point--diminished learning when the regular teacher is absent--was highlighted in a 1971 study of classroom quality conducted by Olson. He concluded that "substitute teachers in classrooms function in a role more akin to that of a 'babysitter' rather than that of a professionally trained educator."¹² Olson drew this conclusion after analyzing classroom observations in 117 suburban school districts. During these observations, some of the areas examined were class size, style of educational activity, number of adults in the classroom, and type of teacher.

¹²Steers and Rhodes, op. cit; Breaugh, op. cit.

¹³Martin N. Olson, "Identifying Quality in School Classrooms: Some Problems and Some Answers," Central Ideas 21 (February 1971): 6.

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From these observations, Olson's ratings of various classrooms indicated that substitute teachers were the least effective type of teacher observed, below even student teachers and teacher aides. The results of these observations are summarized in Table 1. Olson found substitute teachers' performance was abysmal in comparison to that of regular classroom teachers. Therefore, he said, either substitute teachers' performance must be improved, or less expensive methods of handling teacher absence should be initiated.

Table 1.--Results of Olson's elementary school classroom observations.

Type of Teacher	N	Observation Scores
Regular	8,418	6.12
Specialist	1,164	5.82
Substitute	255	1.98
Student teacher	83	3.62
Teacher aide	7	3.21

Source: Martin N. Olson, "Identifying Quality in School Classrooms: Some Problems and Some Answers," Central Ideas 21 (February 1971): 6.

The Lansing School District Personnel Department reviewed teacher absence over a five-year period, from 1977/78 through 1981/82. Teacher absences were defined as those absences permitted within the Teacher Master Agreement¹⁴ for either illness or personal leaves of

¹⁴"Lansing School District Master Agreement with Lansing School Employees Association," ratified for the years 1979 through 1981, p. 44.

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absence. The absence rate was calculated by using the following formula.¹⁵

$$\text{Absence Rate} = \frac{\text{Number of Teacher Days Lost Through Job Absences}}{(\text{Number of Employees}) \times (\text{Number of Workdays})} \times 100$$

The examination of absence data for those five years showed the following results. (See Table 2.)

Table 2.--Rate of teacher absence for illness and personal reasons for the five years, 1977/78 through 1981/82.

Year	Number of Days Absent Illness	Days Absent Personal	Number of Employees	Number of Workdays	Absence Rate
1981/82	11,430.0	921.0	1,441	185	4.6%
1980/81	12,333.0	901.5	1,523	185	4.3%
1979/80	12,367.5	901.0	1,609	185	4.5%
1978/79	11,140.5	741.5	1,554	185	4.1%
1977/78	10,965.0	707.5	1,579	185	4.0%

Source: Taken from "Lansing School District Report of Sick and Personal Leave Days Used 1981/82 Through 1977/78," compiled by the Employee Relations Department, Lansing School District.

¹⁵Educational Research Service, Employee Absenteeism: A Summary of Research (Arlington, Va.: Educational Research Service, 1980), p. 7.

Based on this preliminary analysis, it would appear that these absenteeism rates are much greater than the average of 2.4 percent being reported by the Bureau of National Affairs, or even the 3.6 percent reported for education employees as a whole.¹⁶ In contrast, absenteeism rates in the Lansing School District are not decreasing, as they have been in other sectors over the past several years, but rather are increasing.

Not only is it important to consider the percentage of teaching time an instructor is absent, it is equally important to consider the frequency of absences. Breagh emphasized the need to consider absence frequency and total days absent as distinct measures of absenteeism, as the two clearly are not related.¹⁷ He defined frequency of absence as the total number of periods an employee was absent in a given year, regardless of the length of each absence.¹⁸ For example, an employee might be absent for an extended period of time such as two weeks, thereby missing ten days of work, or he/she might be absent ten separate times spread over ten weeks. In the latter example, the employee's frequency of absence would be much greater than in the former example. Breagh defined total days absent as the total number of days an individual was absent in a given year.¹⁹

¹⁶"Job Absence and Turnover," op. cit., p. 2.

¹⁷Breagh, op. cit., p. 556.

¹⁸Ibid., p. 557.

¹⁹Ibid., p. 558.

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Breaugh proposed that the frequency of absence is more reflective of voluntary absenteeism than is the simple calculation of total number of days absent, and as such leads to the ability to predict future absenteeism.²⁰ Being able to predict absenteeism, and assuming that a relationship exists between student achievement and frequency of absence, it would be possible to develop and implement specific plans to address the absenteeism problem as well as to strengthen student achievement. Thus it is important to examine not only absenteeism levels from the perspectives of absence frequency and total days absent, but also to attempt to determine the importance of the absent teacher in relation to student achievement.

Many writers have focused their attention on the absent student. Harnischfeger and Wiley wrote,

Evidence for other contextual factors seems to reveal potential contributory power to the explanation of test score decreases. One such factor is pupil absence rate which has steadily increased over the past decade, resulting in smaller average amounts of schooling for pupils, but also burdening the teaching process considerably.²¹

The same authors also stated in the Administrator's Notebook,

It is obvious that if a child does not go to school at all, they will not directly benefit from schooling. It would also seem clear that if a child attends school less than the full year, but more than not at all, the benefits they derive from schooling should be in between. That is, the quantity of schooling should be a major determinant of school outcomes.²²

²⁰Ibid., p. 559.

²¹Annegret Harnischfeger and David E. Wiley, "Achievement Test Scores Drop--So What?" Educational Researcher (March 1976): 5-12.

²²Annegret Harnischfeger and David E. Wiley, "Schooling Cutbacks and Achievement Declines: Can We Afford Them?" Administrator's Notebook (The University of Chicago) 24,1 (1975).

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In another article on the topic of student absenteeism, the American Association of School Administrators stated,

Student absenteeism plays a critical role in decreasing actual learning time for the students involved. Each time a student misses class, the teacher has to repeat the assignment and review any material covered while the student was not in class. Absenteeism can also cause motivational problems that affect time on task. Students who have been gone for a number of days may feel left out of the classroom social system and develop an attitude of "why try to catch up." It's important for the teacher to take time to bring these students back into the mainstream of the classroom.²³

With the collected evidence strongly suggesting that achievement is related to time devoted to learning and that such factors as student attendance, length of school day, and length of school year do make a difference are part of time on task, the questions then become: What part does the teacher play in the concept of exposure to schooling? Does it make a difference in learning if the regular teacher is in the classroom? Does it make a difference in learning if the teacher's frequency of absence (number of different absences) is high or low? Does it make a difference in elementary-school teaching if early-elementary teachers (grades 1, 2, 3) are absent a greater percentage of time than are later-elementary teachers (grades 4, 5, 6)?

An examination of literature on absenteeism showed that although much study has been devoted to examining absenteeism in the private sector, very little research has been conducted on teacher absenteeism. The little research that has been carried out suggested

²³American Association of School Administrators, Time on Task, Using Instructional Time More Effectively (Arlington, Va.: American Association of School Administrators, 1982), p. 31.

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that employee absenteeism in education is a definite problem. In a 1977 study, the Academy for Educational Development noted that "teacher absenteeism as a phenomenon has the potential to be a serious problem for the State of Illinois."²⁴ Elliott and Manlove raised two important questions in this regard: "If substitutes are so ineffective, do they constitute a cutback in schooling time and hence achievement? Are school districts bargaining away pupil progress with more and more 'sick days'?"²⁵

In an article entitled "Accounting for Differences in Measured Pupil Performance," Lezotte and Passalacqua wrote: "Researchers are continuing to isolate and estimate the magnitude of 'school effects' by using various models, and by so doing demonstrating that poor achievement is not totally a function of the students who attend the school."²⁶ This position was supported by the causal model related to schooling and achievement presented by Wiley and Harnischfeger, in which they included exposure to schooling as one of the characteristics that could explain student achievement.²⁷ The model they presented is shown in Figure 1.

²⁴Academy for Educational Development, Report on Teacher Absenteeism in the Public Schools of Illinois to State Board of Education (Illinois Office of Education) (Indianapolis: The Academy for Educational Development, Public Policy Division, July 1977).

²⁵Elliott and Manlove, op. cit., p. 270.

²⁶Lawrence W. Lezotte and Joseph Passalacqua, "Individual School Buildings--Accounting for Differences in Measured Pupil Performance," Urban Education (October 1978): 283-91.

²⁷David E. Wiley and Annegret Harnischfeger, "Explosion of a Myth: Quantity of Schooling and Exposure to Instruction, Major Educational Vehicles," Educational Researcher 3 (April 1974): 7-12.



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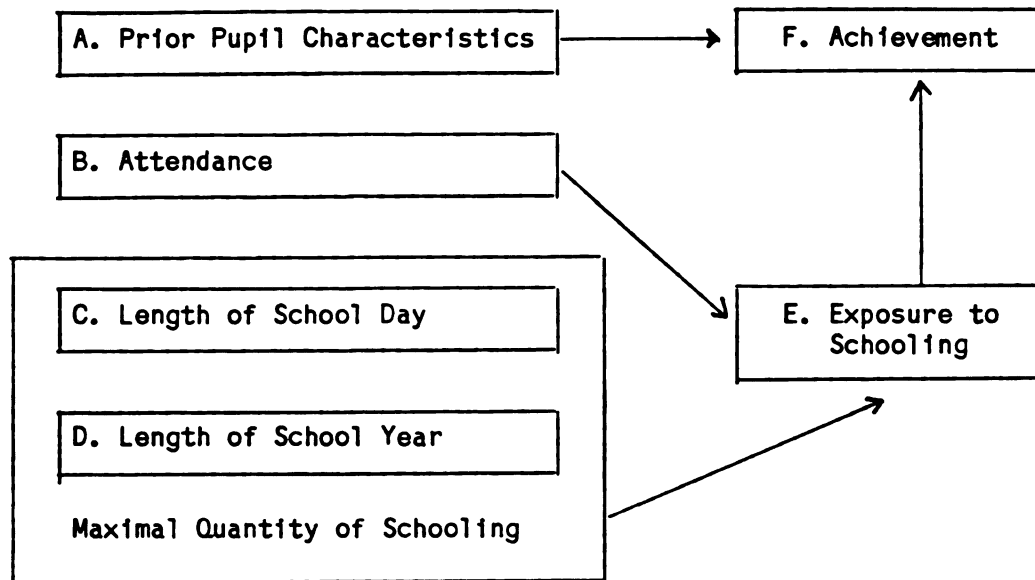


Figure 1.--Schooling exposure and achievement. (From David E. Wiley and Annegret Harnischfeger, "Explosion of a Myth: Quantity of Schooling and Exposure to Instruction, Major Educational Vehicles," Educational Researcher 3 (April 1974): 8.)

The model appears to account for attendance only in terms of the student and does not allow for any variations in achievement based on teacher absence. The model would seem to be stating that the substitute teacher replacing the regular classroom teacher will be equally effective in contributing to student achievement.

Purpose of the Study

The purpose of this study was to examine the absenteeism rates for teachers in grades 1 through 6 in the Lansing School District and to determine if a relationship exists between absenteeism and student achievement, as measured by standardized norm-referenced reading and mathematics tests. The results of this study can be used to develop

programs related to teacher attendance, substitute-teacher use, and cost-savings measures that school districts might implement.

Specifically, the writer's purpose was to investigate:

1. The relationship of elementary pupil (grades 1-6) achievement in mathematics to teacher absenteeism, as measured by total days absent.
2. The relationship of elementary pupil (grades 1-6) achievement in mathematics to teacher absenteeism, as measured by absence frequency.
3. The relationship of elementary pupil (grades 1-6) achievement in reading to teacher absenteeism, as measured by total days absent.
4. The relationship of elementary pupil (grades 1-6) achievement in reading to teacher absenteeism, as measured by absence frequency.
5. The need for developing a specific teacher attendance program to address a situation in which excess absence may be affecting pupil achievement.

Importance of the Study

It is important that the Lansing School District develop a plan to examine large expenditure areas for possible reductions. The expenditure for teacher absence is a large, on-going expense that seems to lend itself to some program of cost containment. At the same time, it seems important to determine the effect of teacher absence of student achievement. If it can be demonstrated that high teacher absence does have a negative effect on student achievement, this

finding might lead to the development of remedial programs aimed at reducing teacher absenteeism.

It appears that as school districts seek ways to reduce expenditures, very little thought is given to the effect that such budget adjustments may have on the students they serve. If it is found that student achievement is related to teacher attendance, such information should be extremely useful in designing a teacher-attendance program. A school district could approach the teacher-absence problem with a dual purpose of not only reducing expenditures but also of correcting or adjusting so-called "school effects," thereby ameliorating the problem for the benefit of students.

The research is also important in developing relationships and understanding between school district finance officers and school instructional personnel, for the ultimate benefit of the students they serve.

Delimitations of the Study

The study was delimited as follows:

1. The investigation was limited to studying the elementary schools, grades 1-6, in the Lansing School District.
2. It was limited to studying elementary school teacher absence for two school years: 1980/81 and 1981/82.
3. The study was limited to determining whether there were relationships between teachers' absence and pupil achievement in two subjects: mathematics and reading.

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Definitions of Terms

The following terms are defined in the context in which they are used in this study.

Teachers: Those elementary school teachers who were actually assigned to a specific classroom during the years of study. Support personnel such as librarians or art and music teachers were not included in this definition.

Pupils: The children enrolled in grades 1-6 during the period of this study.

Teacher absence: A day or a fraction of a day in which the teacher was absent from the assigned classroom, and the absence charged to either sick leave or personal leave, as defined by the teacher Master Agreement in effect during 1980/81 and 1981/82.

Frequency of absence: The total number of periods a teacher is absent in a given year, regardless of the length of each absence.

Hypotheses

Four major hypotheses were tested in this study. These hypotheses are stated in general form below and are restated in testable form in Chapter III.

General Hypothesis I

The proposed relationship between average classroom reading achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha \leq 0.05$) to the overall relationship between reading achievement and the selected demographic variables of Student Mobility rate, Aid to Families with Dependent Children, Family Make-Up, and Parent Education for the 1980/81 school year.

General Hypothesis II

The proposed relationship between average classroom reading achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha < 0.05$) to the overall relationship between reading achievement and the selected demographic variables of Student Mobility rate, Aid to Families with Dependent Children, Family Make-Up, and Parent Education for the 1981/82 school year.

General Hypothesis III

The proposed relationship between average classroom mathematics achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha < 0.05$) to the overall relationship between mathematics achievement and the selected demographic variables of Student Mobility rate, Aid to Families with Dependent Children, Family Make-Up, and Parent Education for the 1980/81 school year.

General Hypothesis IV

The proposed relationship between average classroom mathematics achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha < 0.05$) to the overall relationship between mathematics achievement and the selected demographic variables of Student Mobility rate, Aid to Families with Dependent Children, Family Make-Up, and Parent Education for the 1981/82 school year.

Organization of the Remainder of the Dissertation

In Chapter II, the review of related literature is presented.

The review is primarily directed toward public-sector or teacher absenteeism; however, attention is also devoted to pertinent literature on absenteeism in the private sector. Included in the literature review are items related to the use of substitute teachers.

The procedures and methodology of the study are discussed in Chapter III, which contains a detailed description of the data-gathering techniques used in the study. Included in the chapter is a description of the statistical methods used to analyze the data.

In Chapter IV, the analyses of the data gathered in the study are presented. Each hypothesis is outlined, and the findings obtained for each hypothesis are explained.

The conclusions of the study and their implications are presented in Chapter V. Also included in this chapter are recommendations that may be useful for the development of related school-district programs or that suggest needed additional studies related to teacher absenteeism.

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CHAPTER II

REVIEW OF RELATED LITERATURE

The business community regularly examines employee absentee rates and relates those rates to cost of operations and the loss of productivity. By comparison, it appears that the educational community has spent little time analyzing absenteeism and its relationship to cost of operations or productivity (the teaching of students). In this chapter, the literature concerning employee absence and its relationship to cost and productivity is reviewed in two categories: (1) literature related to business and industry and (2) literature related to schools.

Employee Absenteeism--Business and Industry

In May 1978, Taylor reported that wage and salary workers who normally work full time lost an average of 3.5 percent of their usual hours as a result of illnesses, injuries, and miscellaneous personal reasons.¹ Nearly 7 of every 100 workers experienced at least one spell of absence during the reference week; illnesses and injuries accounted for most of the lost hours. Taylor went on to report that both the proportion of workers with an absence and the

¹Daniel E. Taylor, "Absent Workers and Lost Work Hours, May 1978," Monthly Labor Review (August 1979): 49.

proportion of time lost were about the same in May 1978 as they had been five years earlier.²

A year later, in May 1979, Taylor reported that American workers with full-time wage and salary jobs lost about 95 million hours a week as a result of illnesses, injuries, and miscellaneous personal reasons.³ Again he reported that the overall level of absence had shown no trend. The amount of time lost fluctuated narrowly between 3.3 and 3.5 percent from 1973 to 1979; the percentage of workers absent varied between 6.1 and 6.7 percent.⁴

At the close of the second quarter of 1983 (June), the Bureau of National Affairs (BNA) reported that the rate of unscheduled employee absence for that quarter had dropped to an unprecedented low in BNA's quarterly survey, averaging 1.8 percent of scheduled work time.⁵ By comparison, job absence rates for the second quarter of 1982 and for the first three months of 1983 averaged 2.1 percent of scheduled work time.⁶

Leon reported in November 1982 that most public attention was focused on the total count of the employed and the unemployed, yet a large segment of workers who were counted as employed were not

²Ibid.

³Daniel E. Taylor, "Absences From Work Among Full-Time Employees," Monthly Labor Review (March 1981): 68.

⁴Ibid.

⁵Bureau of National Affairs, "Job Absence and Turnover Second Quarter 1983," Bulletin to Management, September 8, 1983, p. 1.

⁶Ibid.

actually working.⁷ Leon reported further than during a typical week about five million workers are absent from their jobs for the entire week because of vacations, illnesses, and other reasons and therefore are removed from the economic stream for that period. For more than two million workers who receive no pay for the missed week of work, that absence may have unwelcome personal costs as well.⁸

The total number of week-long absentees (paid and unpaid) at a given time increased substantially between 1950 and 1980, rising from 2.0 to 5.1 million. Although employment grew during this period, absences increased even more. As a percentage of the employed, absentees increased from 4.2 to almost 6 percent.⁹ Most of this change occurred in the 1950s and the late 1960s. A slight rise in absenteeism in the early 1970s has been largely offset by a decline toward the end of the decade.

During the period from 1950 through 1980, the major reason for week-long absences was vacations. As shown in the following chart, vacations accounted for a large part of the absence data.¹⁰

<u>Reason for Absence</u>	<u>1950</u>	<u>1980</u>
With a job, but not at work	1,954,000	5,057,000
Percent	100.0	100.0
Vacation	54.2	59.6
Illness	28.2	24.7
Bad weather	2.9	1.5
Labor dispute	4.3	2.0
Other reasons (child care, funerals, jury duty)	10.4	12.2

⁷Carol Boyd Leon, "Employed But Not at Work: A Review of Unpaid Absences," Monthly Labor Review (November 1981): 18.

⁸Ibid. ⁹Ibid. ¹⁰Ibid.

The American Society for Personnel Administration has been surveying absenteeism in the United States since 1974. The Society reported the following figures related to absence from work and unemployment.¹¹

Absenteeism Rates

<u>Year</u>	<u>2.0%</u>	<u>2.2%</u>	<u>2.4%</u>	<u>2.6%</u>	<u>2.8%</u>	<u>3.0%</u>
1976	-----	-----	-----	-----	-----	-----x
1977	-----	-----	-----	-----	-----x	
1978	-----	-----	-----	-----	-----	-----x
1979	-----	-----	-----	-----	-----	-----x
1980	-----	-----	-----	-----	-----x	
1981	-----	-----	-----x			
1982	-----x					

Unemployment Rates

	<u>5.5%</u>	<u>6.5%</u>	<u>7.5%</u>	<u>8.5%</u>	<u>9.5%</u>
1976	-----	-----	-----	-----	-----x
1977	-----	-----	-----x		
1978	-----	-----	-----x		
1979	-----x				
1980	-----x				
1981	-----	-----	-----x		
1982	-----	-----	-----	-----	-----x

¹¹Robert Zager, "Employees Miss Less Work Time," Resource (American Association for Personnel Administration) (February 1983): 12.

Zager pointed out that employees are missing less time at work than at any time in recent years. Over the past four years, absenteeism has dropped as unemployment has risen. With about 99 million Americans currently employed, the difference between 2 percent calling in sick and 3 percent doing the same is close to one million employees.¹²

Not only do business and industry record absences in terms of the percentage of employees either working or not working, they are also interested in the relationship of such absences to productivity. In a report prepared for the American Society of Personnel Administrators, this point was highlighted as follows: "Absence may sometimes make the heart grow fonder--but never when you're running a company. Whether your employee has a genuine health problem, or one of attitude only, the end result is the same."¹³ Absenteeism problems mean not only lost time and money for the company, but also lost productivity. In a time of lagging productivity, absenteeism becomes an especially crucial problem.

Kuzmits reported the cost of national absence is estimated to be between \$15 and \$20 billion a year.¹⁴ He further stated that even if one chooses the "conservative" estimate of \$15 billion a year, it still represents an awesome loss of productivity and a needless waste of human resources. As such, absenteeism relates to

¹³Prentice-Hall Editorial Staff, Absenteeism and Lateness, prepared for the American Society for Personnel Administration (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1981), p. 2.

¹⁴Frank E. Kuzmits, "How Much Is Absenteeism Costing Your Organization," The Personnel Administrator (June 1979): 29-32.

loss of productivity because a business must consider the costs associated with production losses, machine downtime, quality problems, and inefficient use of materials.

Kopelman, Schneller, and Silver also investigated absenteeism and loss of productivity and identified some of the costs associated with sick leave. They included:

- Out-of-pocket expenses such as overtime, extra hours for part-time employees, and over-staffing
- Fringe-benefits costs, which continue while the employee is absent
- Maintenance of an absence-control system, whether it is effective or not
- Increased supervisory time, as a need develops to revise work schedules and to check the output of substitutes
- Lower morale as workers resent doing others' work, or higher turnover rate, more grievances, and/or increased tardiness
- Reduced productivity because more unscheduled work is done by people who are less experienced or fatigued.¹⁵

In another report dealing with employee absenteeism and productivity, Cruikshank estimated the cost of absences to be in the range of \$15 to \$20 billion a year just in wages paid for days when employees are absent.¹⁶ He went on to state that there are other substantial costs: the expense of training workers to fill in for absentees; disruption of production, which holds up deliveries; and, in many industries, perpetual overstaffing to minimize the effect of absenteeism. Cruikshank also found that, in the auto industry, absenteeism rates rise to 10 to 15 percent or even higher

¹⁵Richard E. Kopelman, George O. Schneller IV, and John J. Silver, Jr., "Parkinson's Law and Absenteeism: A Program to Rein in Sick Leave Costs," Personnel Administrator (May 1981): 57.

¹⁶George E. Cruikshank, "No-Shows at Work: High Priced Headache," Nation's Business (September 1976): 37.

at certain times of the year. This increased absenteeism causes havoc with production, upsets quality control, and builds resentment among the workers who do show up and who must be shifted into jobs they might not know or like.¹⁷ Cruikshank summarized his findings by stating that the cost of no-shows is recorded in tens of millions of lost worker hours every week, in idle machinery and unused plant facilities, in materials spoilage, and in delayed shipments to customers.¹⁸

Concerning the relationship of absenteeism to productivity, Feinberg noted that those absences that are most devastating to productivity are the ones that occur on short notice or without any notice.¹⁹ Such absences do not allow the necessary planning to provide for a substitute or to readjust schedules, which planned absences permit.

Allen and Higgins stated that we live in an absenteeism culture. Taking a day off and calling in sick is supported and encouraged by society. Many people's attitude is, "The time is coming to us." But these authors went on to ask, "What does this absenteeism culture cost?"²⁰ Allen and Higgins estimated that the cost of absenteeism to American business exceeds \$100 million a year. But this figure does not account for losses in productivity

¹⁷Ibid., p. 38. ¹⁸Ibid., p. 39.

¹⁹Mortimer R. Feinberg, "New Focus on Absenteeism," Restaurant Business, February 1, 1981, p. 82.

²⁰Robert F. Allen and Michael Higgins, "The Absenteeism Culture: Becoming Attendance Oriented," Personnel (January-February 1979): 30-34.

resulting from workers covering for one another, missed deadlines, missed orders and meetings, lost opportunities, and other substantial costs. The authors suggested that the only way to address the problem of absenteeism is to recognize that it is a cultural problem and that, as such, a cultural solution is required.

It should be noted that employee absenteeism is not a new phenomenon. Johnson and Peterson indicated that, in a 1967 survey, business managers in 100 large and moderate-sized firms reported some kind of problem with absenteeism.²¹

For the private business sector it can easily be shown that, as Rothman stated, "staffing is a critical factor in any organization's ability to function effectively."²¹ She noted further that human error and illness block the attainment of organizational goals and are thus major concerns of management. Rothman proposed that when plans for staffing and production are developed, consideration should be given to the absenteeism rate experienced in the company as well as to the sick-leave-benefit plan used.

The reliance on employees for productivity was discussed by Hayes. He reported that, according to the Council on Economic Affairs, lack of productivity is "one of the most significant

²¹Ronald D. Johnson and Tim O. Peterson, "Absenteeism or Attendance: Which Is Industry's Problem?" Personnel Journal (November 1975): 568.

²²Miriam Rothman, "Can Alternatives to Sick Pay Plans Reduce Absenteeism?" Personnel Journal (October 1981): 788.

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economic problems of recent years."²³ Hayes stated that statistics from the National Center for Productivity and Quality of Working Life show that the past decade's productivity growth fell to an average annual rate of 1.6 percent, half the 3.2 percent rate during the 20-year period from 1947 to 1967. He reported that in the first quarter of 1978 there was a productivity gap (the difference between the amount and the cost of production) of 17.3 points, the worst in recent history. The author noted that one tends to forget that the definition of productivity is "output per worker" and that it is the worker who makes products out of inanimate resources. Hayes also stated that it is the employee who is the key link in the production process. The employee's performance determines whether the limited inanimate resources are optimally used.

Hayes reported that even though human beings are the key to productivity, much of American industry regularly runs without its full complement of staff, resulting in a serious productivity gap.²⁴ Moreover, he stated that although absenteeism directly affects productivity, it is rarely considered a serious problem. Thus a vicious circle exists, for absenteeism flourishes precisely where it is ignored.

Employee Absenteeism: K-12 School Teachers

Staff absenteeism among educational personnel poses serious problems for effective school administration. Unlike many other

²³James L. Hayes, "Absenteeism: The Death of Productivity," Credit and Financial Management (December 1981): 25.

²⁴Ibid.

occupations, teaching requires that classrooms be staffed at all times, either by the regular teacher or by a substitute teacher, to prevent disruption of the learning process and to maintain pupil supervision. From an instructional viewpoint, teacher absenteeism places a heavy strain on the continuity of student learning, and the value of substitute teachers is continually questioned. From a financial standpoint, teacher absenteeism is expensive because the salaries of both the regular and the substitute teacher must be paid when the regular teacher is absent.²⁵

In addition to the interruption of the learning process and the financial aspects related to teacher absences, the expectation of attendance by both students and teachers must also be considered. Bamber stated that schools have a certain expectation for regular attendance of students and teachers, and when this does not occur, classroom performance suffers.²⁶ Even occasional absences cause some learning disruption, but frequent absences of students or a teacher can severely hinder academic programs. When a student is absent, schooling is disrupted for that particular student, but more serious consequences may result when teachers are absent. Bamber went on to state that when substitute teachers are called in it is usually on short notice, with little time for preparation. Substitute teachers are then little more than babysitters in the

²⁵Glenn Robinson, "Foreword," in Educational Research Service, Employee Absenteeism: A Summary of Research (Arlington, Va.: Educational Research Service, Inc., 1980), p. vii.

²⁶Chrissie Bamber, Student and Teacher Absenteeism (Bloomington, Ind.: Phi Delta Kappa Educational Foundation, 1979), pp. 12-14.

classroom. The author noted that absenteeism also has an economic effect on school districts: teacher absences cost schools money in hiring substitutes. Additional administrative expenses and record-keeping costs are also incurred in hiring substitute teachers.

Bamber contrasted the apparent importance given to employee absenteeism by corporations with the relatively minor emphasis given this issue by school districts.²⁷ She indicated that corporations keep close tabs on employee attendance; absent workers are a loss of money to the company, and any rise in absenteeism is countered quickly with measures to reduce it. Yet in schools, where taxpayers foot the bill, it may be several years before citizens become aware of excessive absences.

Elliott and Manlove suggested that frequently absented classrooms could be one of the many factors contributing to declining test scores and increasing vandalism.²⁸ They went on to state that in recent years teacher absences have increased dramatically in many American school systems, and that when this occurs, costs, both financial and instructional, are incurred.

The increase in teacher absence and substitute use was also noted by Bundren, who concluded that such increases appeared to be universal.²⁹ He stated that many districts are not conducting

²⁷Ibid., p. 16.

²⁸Peggy G. Elliott and Donald C. Manlove, "The Cost of Skyrocketing Teacher Absenteeism," Phi Delta Kappan (December 1977): 209-210.

²⁹Dorence L. Bundren, "The Influence of Situational and Demographic Factors on the Absentee Patterns of Teachers" (Ph.D. dissertation, University of Southern California, 1974).

studies relating to absenteeism, and such diverse methods are used to organize and report absentee data that the subsequent utility of the tabulated data is seriously limited. This point was supported by the Educational Research Service, which reported that few local school systems or states have collected and published absence data for teachers and other educational personnel.³⁰ The Service reported that the data that are available indicate school systems employed an average of 4.3 percent substitute teachers during a typical day in 1976/77.

Drake reported that teacher absence is more a fact of life than it is a sudden emergency.³¹ Generous sick-leave policies and increased released time make it possible for a school system to be missing a number of regular faculty members each day. In fact, Drake stated, "published reports have shown that the statistically average student will have ten of their total classroom days each year supervised by a substitute teacher." He said that a substitute teacher is often thought of as the "spare time" of American education, the kind of resource used "to patch things up in an emergency, but then quickly put away as soon as the regular teacher returns."³² According to Drake, the saddest reality of all is that substitutes of

³⁰Educational Research Service, Employee Absenteeism: A Summary of Research (Arlington, Va.: Educational Research Service, 1980), p. 141.

³¹Jackson M. Drake, "Making Effective Use of the Substitute Teacher: An Administrative Opportunity," NASSP Bulletin (September 1981): 74.

³²*Ibid.*

every type, including the most qualified and dedicated available, are seldom instructionally successful because of their stand-in role.

Theoretically, a substitute teacher is a certified and qualified professional who replaces the regular classroom teacher for the purpose of continuing the instructional program, maintaining discipline, and generally promoting the educational welfare of the students. Yet there is little relationship between the intention and practice of substitute teaching. The practice rarely reflects the theoretical definition, and substitutes usually fall into one of the following categories:

- The Baby Sitter--Discipline is the priority. All energy is spent on keeping students quiet, and "busy work" is used to maintain an atmosphere of guidance.
- The Bare-Minimum Teacher--Ease of presentation is the priority. A minimal amount of energy is spent on instruction. The substitute exercises little knowledge, skill, creativity, or authority. The materials and activities presented are chosen because they require a minimum amount of guidance.
- The Improviser--Teaching their area of specialization is the priority. Teaching does take place; however, it has little or no relationship to the standard curriculum. The substitute in this category replaces the regular teacher's lesson plans with a personal curriculum.³³

In a later study reported by McIntire and Hughes, the authors noted that the average student spends seven days out of every school year with a substitute teacher.³⁴ That comes to 84 days (nearly half a school year) during 12 years of schooling. They also stated that the number of good substitute teachers is likely to decline just when the need for them increases. That is, if the teacher shortage that

³³Ibid., p. 75.

³⁴Ronald G. McIntire and Larry W. Hughes, "Houston Program Trains Effective Substitutes," Phi Delta Kappan (June 1982): 702.

many forecasters are predicting occurs, the most experienced and effective substitutes will obtain full-time teaching jobs. McIntire and Hughes also predicted that the number of days to be filled by substitutes is likely to increase and that the shortage of capable substitutes threatens to become acute.

In the Detroit, Michigan, schools, teachers averaged 12.3 days off because of sickness in the first 167 days of classes in the 1979/80 school year.³⁵ Not only was valuable instructional time lost, but an economic loss of \$10.3 million was also realized because the district had to pay the absent teachers for the sick days and hire substitute teachers, if possible.

In a 1974 study conducted by the State of New York Office of Education, it was found that in the 1971/72 school year the cost of hiring substitutes was \$71.5 million for New York City.³⁶ In addition to the financial cost of teacher absence, several other findings were noted:

- Teacher absenteeism was greater in Title I schools than in non-Title I schools.
- The \$71.5 million represented almost 9 percent of the city's total expenditures for teacher salaries.
- Substitute teachers were significantly less effective than regular teachers and specialists, and were even less effective than student teachers. Such a finding led to the remark that "a substitute teacher is no substitute for the teacher."
- Absenteeism may create a harmful interruption in the continuity of education, which may affect the child's learning.

³⁵"Absentee Teachers Boost School Costs," Lansing State Journal, November 1981.

³⁶"Teacher Absenteeism in New York City and the Cost Effectiveness of Substitute Teachers," State of New York, Office of Education Performance Review (Albany: New York Office of Education, January 1974), pp. 1-3.

--The absence of the regular teacher may also set a model for student behavior, a major problem in the New York schools.³⁷

In highlighting the lack of effectiveness of substitute teachers, the New York report stated that, in the last few years, many groups and individuals had critically appraised the performance of substitute teachers and noted that there had been little research to indicate their effectiveness. The report stated, "Conventional wisdom indicates that short-term substitute teachers seldom provide service to students at a level superior to a teacher aide or teacher assistant."³⁸

The New York report went on to state that, in 1971, the Metropolitan School Study Council observed approximately 18,000 teachers and rated them for classroom effectiveness, by type. The Council's ratings are shown below:

MEAN SCORE OF OBSERVATIONS BY TYPE OF TEACHER
RANKED BY CLASSROOM EFFECTIVENESS

	<u>Mean Score</u>	
	<u>Elementary</u>	<u>Secondary</u>
Regular teacher	6.12	5.01
Specialist teacher	5.82	4.99
Student teacher	3.62	2.76
Substitute teacher	1.98	0.27

The Metropolitan School Study Council concluded that the substitute teacher's "being near zero leads to the conclusion that just nothing much was going on." The New York report summarized the ranking of teacher effectiveness by stating that

³⁷Ibid., p. 18.

³⁸Ibid., p. 17.

³⁹Ibid.

What clearly stands out on the table is the abysmal performance of substitute teachers in contrast to that of the regular classroom teacher. The low scores can only be interpreted as meaning that the substitute teachers in these classrooms function in the role more akin to that of a "baby sitter" rather than that of a professionally trained educator. Either substitute teacher performance must be improved or alternative, less expensive methods of handling teacher absence should be initiated.⁴⁰

In an earlier report on teacher absenteeism in the New York City Schools, Zimet reported that absenteeism accounted for 1,500 uncovered classes daily--the equivalent of about 30 schools or one average school district.⁴¹ Zimet's report was based on a study released in 1967, which showed an average absence rate of 2.5 percent of the teachers. During the 1967/68 school year, the rate rose to 6.4 percent; the following year it rose to 7.5 percent--an average of 4,500 teachers absent each school day. Zimet noted that as parents view the effects of decentralization of the New York City Schools, one problem is the periodic absences of teachers and the presence of substitutes who frequently do little more than mind children.⁴²

To place some perspective on these rates of absenteeism, the Educational Research Service reported that literature concerning employee absence, in general, suggests a reasonable rate of absenteeism is from 3 to 6 percent of available work time. The Service also reported that the average absence rate for all workers in the United States ranged from 2.9 to 3.5 percent in 1978.⁴³

⁴⁰Ibid., p. 18.

⁴¹Melvin Zimet, Decentralization and School Effectiveness (New York: Teachers College, Columbia University, 1973), p. 111.

⁴²Ibid.

⁴³Educational Research Service, op. cit., p. 110.

In a study of teacher absenteeism conducted by the Pennsylvania School Boards Association, the following findings were reported:

- Pennsylvania's school districts are spending approximately \$27 million annually for substitute teachers to keep their schools operating during periods of short-term teacher absence and \$88 million in total personnel costs associated with teacher absences.
- The mean work absence rate increased steadily through the school year, with a year-end mean rate of 4.75%.
- The "average" teacher in Pennsylvania was absent a total of 8.2 days during the 1977/78 school year.
- Elementary teachers have a slightly higher absence rate than secondary teachers.
- Female professional staff members have a significantly higher absence rate than male professional staff members.
- More absences occur on Friday than any other day of the week.
- Small districts (fewer than 200 professional employees) tend to have lower absence rates than do larger districts (200 employees or more).
- The mean absence rate for teachers in Pennsylvania exceeds all major industry rates determined by the United States Bureau of Labor Statistics and is approximately one-third higher than the national average in the education industry.
- Over five million hours of regular instructional time are lost due to teacher absences annually.⁴⁴

As a capstone to the findings of the Pennsylvania School Board Association, they discovered that teacher absence had increased by more than 106 percent in the past 16 years.⁴⁵ As a response to the increase in teacher absenteeism, and in an attempt to develop and recommend alternatives to current staffing practices that would benefit the total educational program for students, the report concluded with the following recommendations for school districts to consider:

⁴⁴Pennsylvania School Boards Association, "Teacher Absenteeism: Professional Staff Absence Study" (Harrisburg: Pennsylvania School Boards Association, October 1978), p. v.

⁴⁵Ibid., p. 37.

Controls and Procedures

- Local school districts should develop a "reporting off" procedure which includes direct personal contact with the building principal.
- Building principals should maintain personal contact with the absent teacher during the period of absence and should speak directly with the teacher upon return to work.
- Systems of reporting off and reporting back to work should avoid the impersonal approaches found in many mechanical methods which may stress efficiency and ease of reporting procedures but lack the personal follow-through necessary for adequate control purposes.
- School districts should maintain accurate, current records on teacher absences which are available for review at the building level for personal consultation purposes.
- A monthly absentee report should be available in each district which identifies comparative information on absenteeism rates for the district schools and programs.
- School management personnel, particularly school principals, should not delegate supervisory functions to building secretaries or other support personnel in the development of reporting procedures.
- School boards should develop and enact policies dealing with absenteeism, including appropriate disciplinary actions for abuse of such policies.
- The responsibility for coordinating district policies, building regulations, data gathering, and supervisory review of absenteeism should be maintained at the central office level for effective control.
- A standard method for recording reasons for absence, employment of substitutes, and medical information used to verify absences should be developed and maintained.
- Procedures should be developed which clearly identify the responsibility of absent employees to keep district officials informed of their return to work status in order that timely contact with substitute teachers can be maintained.

Personnel Management and Educational Practices

- Careful attention in the hiring process should be given to the prior history of new applicants related to prior absence records or other indications which denote a potential high absence risk.
- Orientation programs for new and present faculty should review the policies, procedures, and forms associated with absence reporting systems on a regular basis.
- In-service training programs should be developed which review the role of the regular teacher and employed substitutes when absences occur in order to maintain continuity in the instructional process.

- Approved substitute teachers should receive appropriate orientation and written procedures which spell out the policy expectations of the district, the role of the substitute, and the necessary interaction with the regular teacher and building principal in order to provide a smooth transition during periods of substitute employment.
- Teachers who have been determined to have a high incidence of absenteeism should receive special counseling to determine the reason(s) for the unusual absence rate.
- School districts should review scheduled educational activities which tend to have an impact on teacher absences (e.g., scheduling of faculty meetings, student assembly programs, group testing, in-service activities, etc.).
- Consideration should be given to the yearly schedule of programs and activities to determine if the planned schedule contributes to the increased incidence of absence evident in most districts as the school term progresses.

Economic Implications

- School districts should carefully review the reasons for absence, particularly the use of sick leave as enumerated in Section 1154 of the School Code, to ensure that payments made under this authority are legal and permissible.
- School districts should review the provisions of collective bargaining agreements which allow for teacher absences. Limitations and controls of "time off" provisions should be carefully structured when such demands are made in the bargaining process.
- Controls should be placed on the use of personal leave and other professional leave provisions which would limit the number of staff absences on a given day, or in a given month, for such reasons.
- Consideration should be given to restrict use of personal and other professional leave provisions on Mondays and Fridays to discourage the "long weekend" on days which normally have the highest incidence of absence.
- School districts should consider the effect of teacher absences in the development of building plans.
- Consideration should be given to alternative plans for staffing absent positions to include the possible use of community volunteers, retired teachers, teaming with aides, honor students, and other educational resources which would permit greater flexibility in staffing and cost reductions.
- The scheduling of staff for educational purposes which have direct contact with pupils should be given top priority over preparation periods, lunch assignments, or other non-educational pupil contact assignments when absences occur.⁴⁶

⁴⁶Ibid., pp. 41-43.

Reporting that the real cost of teacher absenteeism is probably five to ten times greater than the amount typically computed, Lewis suggested that school districts introduce a record-keeping system to track employee absenteeism.⁴⁷ Lewis reported that using such a system would not only be cost effective for the school district, but it would also improve the quality of education because it would increase the time classroom teachers spend with students.

Lewis felt that school districts tend to overlook the true cost of absenteeism by considering only the daily substitute rate of pay as their cost. Actually, he contended, the cost is much greater when one considers such expenses as the absent teacher's salary; the salaries of administrators who must contact, instruct, and evaluate substitute teachers; and the money schools pay into various employee-benefit accounts, such as retirement, disability, and worker's-compensation funds.

In summary, Lewis suggested that, by using a computer, schools can develop employee attendance profiles that show clearly when and how often employees are absent. With this information, employees will also be able to work toward improving their performance, which will directly affect the amount of instructional time they are providing to students.

The National Association of Secondary School Principals reported that studies conducted in Las Vegas, Nevada; Merrick, New

⁴⁷James Lewis, Jr., "Using a Computer to Monitor Teacher Absenteeism Can Save Schools Money and Increase the Time Teachers Spend in Class," The American School Board Journal (December 1982): 30.

York: New York City; the northern suburbs of Chicago; Indiana; Illinois; and California all found an increase in teacher absenteeism during the course of the studies. Some of the important findings related to teacher absenteeism were as follows:

- Demographic factors including age, gender, salary, continuous employment, and marital status do not have a significant impact on the amount of absenteeism.
- Absenteeism has continued to increase since the passage of collective bargaining legislation, despite better pay, smaller classes, and more appropriate assignments.
- The highest rate of absenteeism occurs the day before and day after the weekend.
- High levels of absenteeism occur in school districts where there are low levels of faculty agreement toward the goals and policies of the community and school district. These high levels of absenteeism occur even in those school districts with high levels of material incentives and pleasant physical environments.
- Low levels of absenteeism among teachers occur in those districts with high levels of community support and policy agreement, regardless of low levels of material inducement and unpleasant physical conditions faced by the teachers.⁴⁸

In addition, Pennsylvania school districts reported annual job-absence rates for 1977/78 ranging from a low of 1.51 percent to a high of 7.3 percent, with an overall group annual mean rate of 4.7 percent.⁴⁹ They also reported that the "average" teacher was absent a total of 8.2 days for the period from September to the end of May. This rate of absenteeism had an economic effect on the various school districts taking part in the survey. The cost of professional staff

⁴⁸"Absent Teachers: Another Handicap for Students," The Practitioner 5 (May 1979): 1.

⁴⁹"Teacher Absenteeism: Professional Staff Absence Study," (Harrisburg: Pennsylvania School Boards Association, October 1978), p. 15.

absenteeism involves not only the salary paid to the absent teacher, but also remuneration to a replacement in the classroom. This dual payment almost doubles the cost of a day's work for the school district, while the amount of work accomplished is generally decreased.⁵⁰

The concept of decreasing work effort in the public sector was highlighted further in a study conducted by Winkler.⁵¹ He reported that even less is known about public-sector absenteeism than about absences in the private sector and that, in all likelihood, public-sector absences are more expensive because they affect both the employer and the individuals receiving the public service. He noted that absent teachers are usually replaced by substitutes, who are likely to be less effective in the classroom than the regular teacher.

Edwards evaluated several factors believed to be related to teacher absenteeism.⁵² He studied the teachers' own attitudes toward interpersonal, intrapersonal, and environmental stressors and how these stressors affect pupil control, administrator/teacher relations, teacher/parent relations, and teacher-to-teacher relations. According to Edwards, the findings of his study tended to indicate a need to:

- Study the school-site situation from the administrator's position.
- Lower class size.

⁵⁰Ibid., p. 35.

⁵¹Donald R. Winkler, "The Effects of Sick Leave Policy on Teacher Absenteeism," Industrial and Labor Relations Review 33 (January 1980): 232.

⁵²Gregor Q. Edwards, "Teacher Absenteeism in Senior High Schools: Economic, Educational, and Human Costs of Teacher Stress," Dissertation Abstracts International 43 (July 1982): 29-A.

- Initiate fair and reliable discipline procedures.
- Increase school security.
- Work on the drug/weapon/violence problem.
- Review administrative approaches.
- Bring teacher training programs in line with needs experienced in teaching. These programs should include: multicultural training, stress-reduction methods, and time management.⁵³

Edwards said that although the tangible economic effect of these stressors approximated \$9 million in the schools sampled, possibly of even greater importance than the tangible costs are concerns related to low teacher or school morale, physical and mental disability, poor human relations, and poor social relations.

Rawson conducted a study on the effectiveness of substitute teachers. He suggested that the following factors often hinder substitutes' effectiveness:

- Low priority given to substitute teachers in the school system.
- Lack of formal substitute teacher programs such as orientation or inservice.
- Same rate of pay for differing levels of experience.
- Lack of fringe benefits or collective negotiations.
- Differing views of role expectations for substitute teachers.
- Lack of feedback and evaluation of substitutes' performance.⁵⁴

Goodman examined declining teacher morale and increasing teacher stress in inner-city situations, in which racial isolation presents specific stresses that are different from those found in integrated settings.⁵⁵ He noted that poor teacher morale and the resulting teacher exit and absence in these schools also have enormous

⁵³Ibid.

⁵⁴D. V. Rawson, "Increasing the Effectiveness of Substitute Teachers," National Association of Secondary School Principals Bulletin (September 1981): 81.

⁵⁵Victor B. Goodman, "Teacher Absenteeism, Stress in Selected Elementary Schools: An Assessment of Economic and Human Costs" (Ed.D. dissertation, University of California, Los Angeles, 1980).

legal, political, social, and economic significance. The findings of Goodman's study demonstrated that black, white, and Hispanic schools possess different stress patterns from each other, and that by knowing these patterns one can anticipate an elementary school's stress characteristics by virtue of its racial composition. In citing some of the differences between schools, the author noted that administrative stress characterizes schools with large black populations, whereas schools with large white populations are characterized by stress brought on by parents.

Goodman listed several remedies proposed by teachers that would be expected to reduce stress and thus to affect the teacher-exit and teacher-absenteeism rates. Those suggestions included:

- Schools with large populations of white students request increased workers compensation, and a desire for better communications with other teachers.
- Physical security was the major concern in schools with large black populations.
- Teachers at Hispanic elementary schools prefer more collegial team control and a better working relationship with the administration.⁵⁶

Goodman concluded that, from a policy viewpoint, any attempt to offer a uniform, districtwide stress-management or morale-enhancement program might be ineffective because of the unique stress patterns that characterize racially isolated schools.

In research examining possible factors related to elementary-teacher absenteeism, Foster studied ten elementary schools in New York City. He reviewed several factors affecting teacher morale, including teacher perceptions of rapport with the principal, the individual's

⁵⁶Ibid.

satisfaction with teaching, and teachers' perceptions of rapport among teachers. Foster concluded that

- The schools with high teacher absenteeism and low teacher absenteeism were related to percentages of low income and minority students in the total population.
- Black and Hispanic students appeared to have a significant effect on teacher absenteeism.
- There were no discernible effects on the average class means of the combined class reading and math achievement test scores in schools with high versus low teacher absenteeism in the schools studied.
- Morale among teachers in schools with high versus low teacher absenteeism did not vary in terms of teacher perception of: teacher rapport with the principal; his or her satisfaction with teaching; and rapport among teachers.
- The percentages of teachers filing grievances did not have a significant effect on the ratios of teacher absenteeism in the schools with high versus low teacher absenteeism.⁵⁷

Beauchamp and Conran examined several factors relating both to students and teachers in an attempt to explain the relationship of selected factors and several areas of student achievement.⁵⁸ In regard to teacher absenteeism and student achievement, findings indicated that teacher absence had a negative influence in 4 of 11 subtest areas measured and in total reading, total math, and total battery. That is, teacher absence had a negative influence on some portions of achievement but did not adversely affect achievement in most subtest areas.

⁵⁷Seymour D. Foster, "An Investigation of Selected Factors in Schools With High Versus Low Teacher Absenteeism in a New York Community School District" (Ed.D. dissertation, Fordham University, 1977).

⁵⁸George A. Beauchamp and Patricia C. Conran, "Longitudinal Study in Curriculum Engineering-VI" (paper presented at the annual meeting of the American Educational Research Association, San Francisco, California, April 1976). (Mimeographed.)

In a 1980/81 study conducted in the 39 secondary schools in the Cleveland City School District, Zafirau found that teachers were absent somewhat less in those schools that had the highest student attendance.⁵⁹

Summary

The studies conducted in the areas of business and industry tended to agree that a large financial loss results from employee absenteeism. This financial loss has been estimated at various levels but tends to fall within \$15 to 20 billion per year. Going beyond the reports dealing with financial losses, there appears to be consensus that employee absenteeism also results in reduced productivity. This position was highlighted by Kuzmits, who stated, "absenteeism relates to loss of productivity in that a business will have to consider the costs associated with production losses, machine downtime, quality problems and inefficient materials usage."⁶⁰

Within the area of education, there appears to be less information regarding the absence of teachers and the educational effect of such absences. A number of studies, such as those conducted by the National Association of Secondary School Principals, the State of New York, and the Pennsylvania School Boards Association, have focused on the number of days teachers are absent, the financial effect of such absences, and the relative ineffectiveness of classroom

⁵⁹James S. Zafirau, "A Study of Attendance Issues in a Desegregating School District," March 15, 1982, p. 4. (Mimeographed.)

⁶⁰Kuzmits, op. cit., p. 29.

substitutes. But very few studies have explored the loss in productivity that might occur to pupils when the classroom teacher is absent. In one such study, Foster concluded that there were no noticeable effects on the average class means of combined reading and mathematics achievement test scores in New York high schools with high versus low teacher absenteeism.⁶¹

⁶¹Foster, op. cit.

CHAPTER III

METHODS AND PROCEDURES

Sample

The study sample comprised two groups chosen from the Lansing School District: (1) the entire student enrollments in grades 1 through 6 during the 1980/81 and 1981/82 school years and (2) all of the teachers assigned to those classes for the same two years.

Pupil Sample

All of the pupils in grades 1 through 6 were chosen as the sample because they provided a good representation of characteristics found in an urban school district. The reason for selecting all of the pupils was to obtain students with a range of socioeconomic levels and achievement abilities similar to what would be found if a sample had been chosen from the total population by some other means. It should be noted that even though all of the pupils in grades 1 through 6 were chosen for this study, only those present and actually taking the standardized reading and mathematics tests were included in the analysis. The number of pupils, by grade, for the two years of study is shown in Tables 3 and 4. Summary data related to the number of pupils from each elementary school building who took the Stanford Achievement Tests are shown in Tables A1, A2, A3, and A4, Appendix A.

Table 3.--Number of elementary pupils, by grade, taking Stanford Achievement Test in reading, 1980/81 and 1981/82.

Grade	1980/81	1981/82
1	1,798	1,675
2	1,707	1,589
3	1,760	1,576
4	1,821	1,674
5	1,788	1,716
6	1,691	1,706
TOTAL	10,565	9,936

Source: Taken from the Overview of Stanford Achievement Test Analysis report of the Lansing School District for 1980/81 and 1981/82.

Table 4.--Number of elementary pupils, by grade, taking Stanford Achievement Test in mathematics, 1980/81 and 1981/82.

Grade	1980/81	1981/82
1	1,796	1,674
2	1,701	1,586
3	1,753	1,572
4	1,819	1,669
5	1,792	1,716
6	1,687	1,705
TOTAL	10,548	9,922

Source: Taken from the Overview of Stanford Achievement Test Analysis report of the Lansing School District for 1980/81 and 1981/82.

Teacher Sample

All of the elementary school teachers who taught grades 1 through 6 during the 1980/81 and 1981/82 school years were included in the sample to provide a broad representation of teacher characteristics such as years of teaching experience, educational level, age, and sex. The sample was selected in this manner to be characteristic of teaching staffs in the larger population. The actual number of teachers included in the study during the two school years under investigation is shown in Table 5.

Table 5.--Number of teachers included in study during 1980/81 and 1981/82.

Year	Number of Teachers
1980/81	426
1981/82	399

Source: Taken from Personnel Department records of the Lansing School District for 1980/81 and 1981/82.

Data-Collection Procedures

Stanford Achievement Test

The Stanford Achievement Test (SAT), Form A,¹ is administered to every pupil in grades 1 through 6 each spring. The data used in

¹Eric F. Gardner, Herbert C. Rudman, Bjorn Karlson, and Jack C. Merwin, Stanford Achievement Test (Form A) (New York: The Psychological Corporation, 1974).

this research resulted from the spring 1981 and 1982 testings of pupils in the areas of reading and mathematics.

The summaries of pupil achievement for the two years of the study were for the Total Reading and Total Mathematics batteries, reported as mean percentiles. These data were reported in several different ways for use within the school district. The data were provided in a summarized form showing the results of the total school district, as well as the results of individual grades within each building. Table 6 shows the results of the testing conducted in spring 1981.

Table 7 shows the results of the testing conducted in spring 1982.

The normal curve equivalent and percentile rank on the reading and mathematics achievement tests for each elementary school building in each of the two years under study are shown in Table 8 and 9.

Student Mobility Rate

The student mobility rate is a comparison of the total pupil enrollment at the beginning of a school year with the total number of pupils who move into or out of an individual school during a given school year. By reviewing the records of those pupils who enter or withdraw from school, a percentage of change is calculated. The lower the percentage the fewer changes that have taken place, whereas the larger the percentage the greater the number of entries or withdrawals from the beginning of a school year. Examining the student mobility rate enables the researcher to determine the degree of student movement

Table 6.--Elementary grade level summary report for Stanford Achievement Test, 1980/81: Mean scaled score, standard deviation, average percentile, and number of pupils.

Grade	Mean Scaled Score	Standard Deviation ^a	Percentile Rank of Mean Scaled Score ^b	N
Reading				
1	117.7697	16.8881	60	1,798
2	135.0773	16.9148	60	1,707
3	146.8148	17.5564	60	1,760
4	154.6447	17.9516	52	1,821
5	162.8916	19.2981	52	1,873
6	172.5490	20.1699	56	1,765
Mathematics				
1	124.7433	12.0292	72	1,796
2	134.4827	11.1334	62	1,701
3	146.1820	13.1950	60	1,753
4	155.8384	14.3863	54	1,819
5	166.3113	16.2868	50	1,876
6	176.2993	17.5422	56	1,761

Source: Taken from the "Overview of Stanford Achievement Test Analysis" report of the Lansing School District, November 1981.

^aIn terms of scaled score points.

^bScaled scores were averaged first for each grade. Percentiles were then calculated from the mean scaled scores.

Table 7.--Elementary grade level summary report for Stanford Achievement Test, 1981/82: Mean scaled score, standard deviation, average percentile, and number of pupils.

Grade	Mean Scaled Score	Standard Deviation ^a	Percentile Rank of Mean Scaled Score ^b	N
Reading				
1	118.7600	16.8582	64	1,675
2	135.8263	15.9720	60	1,589
3	147.5057	17.6647	59	1,576
4	154.9474	17.4410	52	1,674
5	163.5256	19.0219	54	1,716
6	173.4007	19.6250	56	1,792
Mathematics				
1	124.9630	11.1655	72	1,674
2	135.4836	10.9920	64	1,586
3	147.3009	13.0465	62	1,572
4	156.4955	13.9691	56	1,669
5	166.8969	16.4599	52	1,716
6	177.1971	17.3909	58	1,791

Source: Taken from the "Overview of Stanford Achievement Test Analysis" report of the Lansing School District, November 1982.

^aIn terms of scaled score points.

^bScaled scores were averaged first for each grade. Percentiles were then calculated from the mean scaled scores.

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Table 8.--Elementary school building summary report for Stanford Achievement Test, 1980/81 and 1981/82: Mean building reading normal curve equivalent and building percentile rank.

School Number	1980/81		1981/82	
	Mean Building Normal Curve Equivalent	Building Percentile Rank ^a	Mean Building Normal Curve Equivalent	Building Percentile Rank ^a
1	51.22	52	52.40	55
2	54.62	59	55.42	60
3	57.20	63	57.86	65
4	54.08	58	50.66	51
5	57.15	63	57.24	63
6	57.49	64	53.48	56
7	57.98	65	57.83	65
8	49.76	50	52.00	54
9	59.61	68	59.71	68
10	59.62	68	59.98	68
11	47.95	46	49.39	49
12	54.86	59	54.31	58
13	46.18	43	45.09	41
14	53.71	57	56.36	62
15	47.49	45	47.83	46
16	49.81	50	51.64	53
17	51.31	53	51.49	53
18	51.72	53	54.45	58
19	60.06	68	63.57	74
20	59.01	67	60.09	68
21	62.56	72	64.24	75
22	50.35	51	50.84	51
23	51.33	53	52.59	55
24	49.13	48	50.80	51
25	53.20	56	54.62	59
26	51.51	53	53.50	57
27	47.53	45	50.64	51
28	49.23	49	48.02	46
29	52.11	54	52.06	54
30	52.09	54	52.46	55
31	59.75	68	52.71	55
32	49.80	50	48.12	46
33	49.43	49	48.90	48
34	48.38	47	51.96	54
35	48.04	46	building closed	
36	55.72	61	57.14	63
37	54.33	58	57.46	64
38	46.68	44	45.29	41
39	56.75	62	61.20	70
40	49.10	48	51.24	52
41	55.91	61	55.66	61

Source: Taken from the "Overview of Stanford Achievement Test Analysis" report of the Lansing School District, 1981 and 1982.

^aTo obtain a building percentile rank that covers several grade levels, the following method was used:

1. Scaled scores were averaged for each grade at each school.
2. The closest corresponding percentile for each averaged scale score was found.
3. Each percentile was then converted to the closest NCE score.
4. NCE's for each grade were weighted for a building NCE.
5. The corresponding building percentile was figured from the weighted NCE.

Table 9.--Elementary school building summary report for Stanford Achievement Test, 1980/81 and 1981/82: Mean building mathematics normal curve equivalent and building percentile rank.

School Number	1980/81		1981/82	
	Mean Building Normal Curve Equivalent	Building Percentile Rank ^a	Mean Building Normal Curve Equivalent	Building Percentile Rank ^a
1	40.75	33	53.50	57
2	58.18	65	54.23	58
3	64.03	75	62.39	72
4	51.89	53	53.50	57
5	56.96	63	57.41	64
6	60.02	68	56.44	62
7	57.86	65	57.83	65
8	53.22	56	57.67	64
9	60.53	69	60.41	69
10	63.40	74	63.33	74
11	51.73	53	51.41	53
12	55.39	60	57.26	64
13	45.81	42	48.41	47
14	56.96	63	56.91	63
15	57.68	64	57.08	63
16	53.58	57	54.00	58
17	56.70	63	59.19	67
18	56.79	63	58.06	65
19	61.38	71	65.38	77
20	58.01	65	61.97	71
21	58.12	65	62.22	72
22	52.99	55	53.58	57
23	51.39	53	54.97	59
24	49.27	49	52.57	55
25	53.52	57	55.07	59
26	52.48	55	53.27	56
27	46.26	43	52.31	54
28	54.43	58	59.53	67
29	52.68	55	54.16	58
30	49.48	49	52.06	54
31	61.25	70	63.08	73
32	52.03	54	50.93	52
33	49.98	50	49.48	49
34	50.09	50	53.79	57
35	46.78	44	building closed	
36	54.15	58	57.10	63
37	53.69	57	56.03	61
38	53.59	57	49.00	48
39	60.07	68	62.49	72
40	52.20	54	53.64	56
41	53.37	56	56.17	61

Source: Taken from the "Overview of Stanford Achievement Test Analysis" report of the Lansing School District, 1981 and 1982.

^aTo obtain a building percentile rank that covers several grade levels, the following method was used:

1. Scaled scores were averaged for each grade at each school.
2. The closest corresponding percentile for each averaged scale score was found.
3. Each percentile was then converted to the closest NCE score.
4. NCE's for each grade were weighted for a building NCE.
5. The corresponding building percentile was figured from the weighted NCE.

within the school district. It is believed that students' mobility affects their achievement.

For the purpose of this study, student mobility rates were examined from the perspective of the total school district, as well as of individual schools within the district. The total school district mobility rates for 1980/81 and 1981/82 are shown in Table 10, and the individual school mobility rates are reported in Table A5, Appendix A.

Table 10.--Selected elementary school demographic data of the Lansing School District for 1980/81 and 1981/82.

Grades 1-6	1980/81 (%)	1981/82 (%)
Student Mobility	31.4	30.6
Parent Education	71.0	58.0
Aid to Families with Dependent Children	25.7	22.6
Family Make-Up	66.0	66.0

Source: Taken from the "Elementary Demographic Data Report" of the Lansing School District, 1980/81 and 1981/82.

Parent Education

The elementary school Parent Education Report is used to gather data concerning the education of parents of currently enrolled elementary school pupils. This information is requested from each parent or guardian when the pupil is enrolled; not all parents divulge

this information. The parent education data are collected because it is believed that parents' education level may have a relationship to the educational achievement of their children.

By reviewing parents' responses to the education report, it is possible to determine the percentage of parents who have completed 12 years of education or more, as compared to those who have not finished their high school education. For the purpose of this study, the elementary parent education rate was examined from the perspective of the total school district. The total school district parent education rate is shown in Table 10, and individual school rates are reported in Table A6, Appendix A.

Aid to Families With Dependent Children

Aid to Families with Dependent Children (AFDC) is a reporting of the percentage of families who are receiving financial aid and have dependent children. The percentage of a school's population receiving AFDC is determined by comparing the actual number of children living within a school's attendance boundaries and receiving AFDC with the total number of children living in that attendance area. These data are collected because it is believed there may be a relationship between a family's economic level and the educational achievement of their children.

For the purpose of this study, the AFDC rate was examined from the perspective of the total school district, as well as of individual schools within the district. The total school district AFDC rate is

shown in Table 10, and the individual school rates are reported in Table A7, Appendix A.

Family Make-Up

Family Make-Up is a report indicating the number of two-parent families as compared to single-parent families within the various elementary school attendance areas. The two-parent family could include either the natural parents or step-parents.

Family Make-Up information is requested of the parent or guardian when the pupil is enrolled. Such information is given voluntarily and is subject to change as family status changes. This information is collected because it is believed there may be a relationship between family make-up and children's educational achievement.

For the purpose of this study, Family Make-Up data were examined from the perspective of the total school district, as well as of the individual schools within the district. The total school district Family Make-Up data are shown in Table 10; the individual school rates are reported in Table A8, Appendix A.

Elementary School Teacher Absenteeism

For the purpose of this research, data were collected regarding the absenteeism of elementary school teachers in grades 1 through 6 during the 1980/81 and 1981/82 school years. These data concerned teacher absenteeism for reasons of health and/or personal necessity.

Part of an individual teacher's contract with the Lansing School District is a provision in the Master Agreement that allows the teacher to be absent for reasons of health and/or personal business.

The contract states in part:

Compensable Leave

- A. Compensable leave of ten (10) days for the school year shall be credited to the compensable leave account of each teacher. This benefit will be pro-rated for teachers hired after the beginning of the school year. Each teacher shall be entitled to unlimited accumulation of the unused portion of each year's compensable leave which shall be available in future years. In addition, teachers shall have available two leave days per year under the provisions in Section D. Any unused portion of the leave days shall become additional compensable leave.
- B. Compensable leave shall be granted in accordance with the schedule specified herein, subject to the following conditions:
 - 1. Personal illness: Bonafide physical or mental incapacity of the teacher to report for and discharge duties to the extent of unused days credited.
 - 2. Illness or serious injury in the immediate family: Absence necessitated because of the need of the personal attendance of the teacher. (Immediate family shall include the teacher's spouse, children, parents or foster parents, parents-in-law, brothers, sisters, and any other person for whose financial or physical care the teacher is principally responsible.)
 - 3. Bereavement: Utilization of such leave shall be for the purpose of attending the funeral arrangements in the case of the death of a teacher's father, mother, father-in-law, mother-in-law, spouse, children, brother, sister, grandparents or grandchildren. This leave shall be for a maximum of five (5) days.
 - 4. Funerals: One day leave may be granted for attending funerals for persons other than in the immediate family. One additional day may be requested for attending funerals held more than 200 miles from Lansing.²

²Taken from the Master Agreement between the Lansing Schools Education Association and the Lansing School District for 1981, 1984, Article XV, p. 34.

If a teacher is absent for either health or personal reasons, he/she is required to complete an Employee Absence Form indicating the dates of absence and the reason for absence. (See Appendix C.) The teacher absences considered in this research were only those that were allowable under the agreement for reasons of health and/or personal business. The number of days absent was then totaled and analyzed by two separate measures, Total Teacher Days Absent and Frequency of Absence, for both the 1980/81 and 1981/82 school years.

Total Teacher Days Absent is the total number of days a teacher was absent for reasons of health and/or personal business in a given school year. A summary of days absent for elementary school teachers is shown in Table 11.

In addition to examining Total Teacher Days Absent, the investigator also reviewed Frequency of Teacher Absence to determine how many different times the teacher was absent. When a teacher returned from an absence and later was absent again, it increased the frequency of absence. Or, stated another way, a teacher could be absent five consecutive days, or he/she could be absent one day a week for five weeks. In the former, the frequency-of-absence rate would be one; in the latter, the frequency-of-absence rate would be five. A summary of the Frequency of Elementary Teacher Absence for 1980/81 and 1981/82 is shown in Table 11.

Table 11.--Days absent and frequency of absence per elementary teacher (grades 1-6), 1980/81 and 1981/82.

Year	Number of Teachers	Number of Days Absent	Average Days Absent/Teacher
Days Absent			
1980/81	426	3,969.5	9.3
1981/82	399	3,290.0	8.2
Frequency of Absence			
1980/81	426	2,394.0	5.6
1981/82	399	2,040.0	5.1

Source: Taken from teacher absenteeism records of the Lansing School District, 1980/81 and 1981/82.

Breaugh described frequency of absence as "the total number of periods an employee was absent in a given year regardless of the length of each absence."³ He went on to indicate that it is important to consider the measure of frequency because it is less sensitive to one long period of absenteeism and reflects voluntary absenteeism more than does the total number of days an employee is absent.

Following an examination of the teacher absenteeism data, the results were used as they pertained to total mean absence, grade-level mean absence, and building mean absence. The absence data for individual buildings are reported in Tables A8 and A9, Appendix A.

³James A. Breaugh, "Predicting Absenteeism From Prior Absenteeism and Work Attitudes," Journal of Applied Psychology 5 (1981): 557-58.

Design and Methodology of the Study

The experimental design used in this study was a multiple-regression analysis as described by Kerlinger.⁴ The key to this design is the ability to enter independent variables one by one on the basis of pre-established criteria. In the case of this study, it was possible to study the effects of teacher absenteeism on reading and mathematics achievement. Kerlinger stated, "educational researchers can study the combined and separate effects on school achievement, say of intelligence, aptitude, social class, race, home background, school atmosphere, teacher characteristics, and so on."⁵

The statistical design of this study consisted of a multiple-regression analysis, using a forward inclusion of two groups of independent variables. The first group of independent variables entered into the analysis comprised Frequency of Teacher Absence (FTA) and Total Teacher Days Absent (TTDA). After allowing these two independent variables to account for as much variability in the two dependent variables (reading and mathematics achievement) as they could, the second group of independent variables, Aid to Families with Dependent Children, Student Mobility Rate, Parent Education, and Family Make-Up, were given an opportunity to enter into the regression equation.

⁴Fred N. Kerlinger, Foundations of Behavioral Research, 2nd ed. (New York: Holt, Rinehart and Winston, Inc., 1973), p. 150.

⁵Ibid.

The forward-inclusion approach, although favoring the first group of independent variables (Frequency of Teacher Absence and Total Teacher Days Absent) over the second group, would not result in distortion of the real-life situation because the relationship of reading and mathematics achievement to parental education and socioeconomic status has been largely confirmed by many researchers and was not under scrutiny in this project. The forward-inclusion strategy allows one to examine the relationship of teacher absence variables, however minimal, to students' SAT reading and mathematics scores, while at the same time giving an optimal-prediction equation with as few terms as possible.

This study was designed to answer two major questions:

1. What is the effect of elementary teacher total absenteeism on elementary pupils' achievement in the areas of reading and mathematics?

This question involved the study of elementary teachers' (grades 1-6) total time absent for reasons of health and/or personal business and the relationship of such absence to pupil achievement. This researcher posed the questions: (a) Does it make a difference how many days a teacher is absent? and (b) Does the total amount of teacher absence have a greater effect on pupil achievement than certain social factors such as student mobility rate, Family Make-Up, Aid to Families with Dependent Children, or parents' level of education? The study covered two years, 1980/81 and 1981/82.

Data were analyzed by using the Statistical Package for the Social Sciences (SPSS)⁶ to discover whether there was a relationship between the dependent and independent variables. In this section of the study, the dependent variable was pupils' achievement as demonstrated by their reading and mathematics scores on the Stanford Achievement Test for their grade level. The independent variables were total teacher days absent and selected demographic data related to pupils (student mobility rate, Aid to Families with Dependent Children, Family Make-Up, and parents' level of education).

2. What is the effect of elementary teacher frequency of absenteeism on elementary pupil achievement in the areas of reading and mathematics?

This question involved the study of elementary teachers' (grades 1-6) frequency of absence for reasons of health and/or personal business and the relationship of such absence to pupil achievement. This investigator posed the questions: (a) Does it make a difference how frequently or how many different periods of time a teacher is absent? (b) Does a high frequency of absence have a greater effect on pupil achievement than does a high total rate of absence? and (c) Does frequency of absence have a greater effect on pupil achievement than do certain socioeconomic factors, such as student mobility rate, single-parent status, Aid to Families with Dependent Children, or parents' level of education?

⁶Norman H. Nie et al., Statistical Package for the Social Sciences, 2nd ed. (New York: McGraw-Hill Book Co., 1975), pp. 320-67.

The Statistical Package for the Social Sciences was used to determine whether there was a relationship between the dependent variable and the independent variables. In this portion of the study, the dependent variable was pupils' achievement as demonstrated by their reading and mathematics scores on the Stanford Achievement Test for their grade level. The independent variables were frequency of teacher absence and socioeconomic data related to pupils (student mobility rate, Aid to Families with Dependent Children, Family Make-Up, and parents' level of education).

Hypotheses

Multiple-regression analyses were used to test the following hypotheses:

General Hypothesis I

The proposed relationship between average classroom reading achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha < 0.05$) to the overall relationship between reading achievement and the selected demographic variables of Student Mobility rate, Aid to Families with Dependent Children, Family Make-Up, and Parent Education for the 1980/81 school year.

Analyses of Hypothesis I were performed separately for grades 1 through 6 and for the total of all elementary classrooms.

General Hypothesis II

The proposed relationship between average classroom reading achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha < 0.05$) to the overall relationship between reading achievement and the selected demographic variables of Student Mobility rate, Aid to Families

with Dependent Children, Family Make-Up, and Parent Education for the 1981/82 school year.

Analyses of Hypotheses II were performed separately for grades 1 through 6 and for the total of all elementary classrooms.

General Hypothesis III

The proposed relationship between average classroom mathematics achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha < 0.05$) to the overall relationship between mathematics achievement and the selected demographic variables of Student Mobility rate, Aid to Families with Dependent Children, Family Make-Up, and Parent Education for the 1980/81 school year.

Analyses of Hypothesis III were performed separately for grades 1 through 6 and for the total of all elementary classrooms.

General Hypothesis IV

The proposed relationship between average classroom mathematics achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha < 0.05$) to the overall relationship between mathematics achievement and the selected demographic variables of Student Mobility rate, Aid to Families with Dependent Children, Family Make-Up, and Parent Education for the 1981/82 school year.

Analyses of Hypothesis IV were performed separately for grades 1 through 6 and for the total of all elementary classrooms.

Summary

Elementary teacher absence data were gathered for two school years, 1980/81 and 1981/82. The absence data were recorded in two different forms: (1) the total number of days a teacher was absent each year and (2) the number of different times each year a teacher was

absent. The absence data were analyzed to determine if such absence had an effect on the SAT reading and/or mathematics scores of pupils in grades 1 through 6 those two years.

The method of analysis was a multiple-regression approach, using a forward inclusion of two groups of independent variables. This design was used to determine the effect of teacher absenteeism on reading and mathematics before allowing other demographic variables to enter into the regression equation.

CHAPTER IV

FINDINGS

The findings of the data analysis are contained in this chapter. The results of the hypotheses testing are presented, as are other related findings.

The hypotheses were formulated to determine whether (1) elementary teacher absenteeism in the Lansing School District had a significant effect on elementary pupils' reading achievement during the 1980/81 and/or 1981/82 school years and (2) whether elementary teacher absenteeism in the Lansing School District had a significant effect on elementary pupils' mathematics achievement during the 1980/81 and/or 1981/82 school years. Additional hypotheses were formulated to determine if the number of times a teacher was absent had an effect on pupils' reading and/or mathematics achievement.

Review of Data Analysis

Using regression analysis incorporating the forward-inclusion approach favored the first group of independent variables (Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) over the second group of independent variables (Aid to Families with Dependent Children [AFDC], Parent Education [PED], Student Mobility [SMOB], and Family Make-Up [FAM]). It was determined that such an approach would

not distort the real-life situation because the relationship of reading and mathematics achievement to parental education and economic status has been largely confirmed by many researchers and was not under scrutiny in the present project.

Pearson product-moment correlation analysis was used to illustrate the relative strengths of dependency of the various independent variables in this study. Through this method it was shown that the dependent variable of mean Stanford Achievement Test (SAT) reading percentile appeared to be correlated with Aid to Families with Dependent Children, Student Mobility, Parent Education, Family Make-Up, and Total Teacher Days Absent but was not at all correlated with the independent variable--Frequency of Teacher Absence. These findings are shown in Tables 12 and 13.

Table 12.--Intercorrelations for seven variables included in this study: Reading--1980/81.

	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.39*					
SMOB	-0.32*	0.83*				
PED	0.39*	-0.84*	-0.71*			
FAM	0.33*	-0.80*	-0.66*	0.61*		
FTA	0.07	0.06	0.10	0.05	0.01	
TTDA	-0.12*	0.03	0.08	-0.04	-0.06	0.40*

*Significant at $\alpha < 0.05$.

Table 13.--Intercorrelations for seven variables included in this study: Reading--1981/82.

	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.42*					
SMOB	-0.36*	0.73*				
PED	0.15*	-0.26*	-0.18*			
FAM	0.39*	-0.73*	-0.44*	0.30*		
FTA	-0.02	-0.07	-0.04	0.31	0.04	
TTDA	0.17*	-0.08	0.02	-0.08	0.13*	0.30*

*Significant at $\alpha < 0.05$.

In the area of mathematics, the dependent variable of mean Stanford Achievement Test mathematics percentile was moderately correlated with Aid to Families with Dependent Children, Student Mobility, Parent Education, Family Make-Up, and Total Teacher Days Absent (1981/82 only) and was not at all correlated with the independent variables of Frequency of Teacher Absence and Total Teacher Days Absent (1980/81 only). These findings are shown in Tables 14 and 15.

Table 14.--Intercorrelations for seven variables included in this study: Mathematics--1980/81.

	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	0.26*					
SMOB	-0.14*	0.83*				
PED	0.24*	-0.84*	-0.71*			
FAM	0.27*	-0.80*	-0.66*	0.61*		
FTA	0.01	0.28	0.10	-0.04	-0.06	
TTDA	-0.10	0.18*	0.16*	-0.14*	-0.25*	0.40*

Table 15.--Intercorrelations for seven variables included in this study: Mathematics--1981/82.

	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.28*					
SMOB	-0.13*	0.73*				
PED	0.18*	-0.26*	-0.18*			
FAM	0.27*	-0.73*	-0.44*	0.30*		
FTA	-0.04	-0.07	-0.04	0.03	0.04	
TTDA	0.19*	-0.08	0.02	-0.08	0.13*	0.30*

*Significant at $\alpha < 0.05$.

Results of Hypothesis Testing

Multiple-regression analysis incorporating the forward inclusion of the variables Frequency of Teacher Absence and Total Teacher Days Absent was used to test the hypotheses formulated for this research. Each hypothesis was tested in two ways. In Part One, the data were analyzed for all elementary grades (1-6) as a whole. In Part Two, the data were analyzed for each of the elementary grades as a separate group. The findings of these analyses are presented below.

General Hypothesis I

The proposed relationship between average classroom reading achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha < 0.05$) to the overall relationship between reading achievement and the selected demographic variables of Student Mobility rate, Aid to Families with Dependent Children, Family Make-Up, and Parent Education for the 1980/81 school year.

Part One.--Analysis of all elementary grades (1-6) as a total: 1980/81 school year.

The test of Hypothesis I provided the following data relative to Reading-1981. (See Table 16.)

Table 16.--Multiple-regression analysis of Reading-1981 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Parent Education).

Source	df	Mean Square	F	Signif. of F
Regression	3	933.54169	13.10058	0.00*
Residual	193	71.25957		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Parent Education; $F(3,193) = 13.10058$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Family Make-Up, and Aid to Families with Dependent Children were not included as independent contributors. However, they did influence the above relationship through their intercorrelations with the Parent Education variable.

As the overall regression was found to be significant (Table 16), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent

components. Table 17 includes a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Reading-1981).

Table 17.--Summary of the predicted relationship between Reading-1981 and Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Parent Education-1981.

Variable	Multiple R	R^2	F	Signif. of F
FTA-81	0.0700	0.0049	1.495	0.13
TTDA-81	0.1607	0.0258	1.579	0.11
PED-81	0.4113	0.1691	5.770	0.00*

*Significant at $\alpha < 0.05$.

Table 17 shows that the statistically significant relationship between Reading-1981 and the three independent variables of Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Parent Education-1981 was caused primarily by its correlation with the Parent Education variable. Parent Education accounted for 17% of the variation in the Reading-1981 variable, as shown in the variable column, $R^2 = 0.1691$. This value was significant for $F = 5.770$ at $\alpha = 0.00$

Part Two.--Analysis of each elementary grade as a separate group. The test of Hypothesis I provided the following data.

Grade 1: The test of Hypothesis I provided the following data relative to Reading-1981 for Grade 1. (See Table 18.)

Table 18.--Multiple-regression analysis of Grade 1 Reading-1981 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Parent Education).

Source	df	Mean Square	F	Signif. of F
Regression	3	314.92146	3.66638	0.02*
Residual	31	85.89429		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Parent Education; $F(3,31) = 3.66638$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Family Make-Up, and Aid to Families With Dependent Children were not included as independent contributors. However, they did influence the above relationship through their intercorrelations with the Parent Education variable, as shown in Appendix Table B1.

As the overall regression was found to be significant (Table 18), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 19 includes the summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Reading-1981).

Table 19.--Summary of the predicted relationship between Grade 1 Reading 1981 and Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Parent Education-1981.

Variable	Multiple R	R ²	F	Signif. of F
FTA-81	0.07000	0.00490	1.251	0.22
TTDA-81	0.35193	0.12385	0.898	0.37
PED-81	0.51157	0.26189	2.408	0.02*

*Significant at $\alpha < 0.05$.

Table 19 shows that the statistically significant relationship between Grade 1 Reading-1981 and the three independent variables of Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Parent Education-1981 was caused primarily by its correlation with the Parent Education variable. Parent Education accounted for 26.2% of the variation in the Reading-1981 variable, as shown in the variable column, $R^2 = 0.26189$. This value was significant for $F = 2.408$ at $\alpha = 0.02$.

Grade 2: The test of Hypothesis I provided the following data relative to Reading-1981 for Grade 2 (Table 20).

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Student Mobility; $F(3,31) = 6.76429$ at $\alpha < 0.05$.

Table 20.--Multiple-regression analysis of Grade 2 Reading-1981 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Student Mobility).

Source	df	Mean Square	F	Signif. of F
Regression	3	386.37637	6.76429	0.00*
Residual	31	57.12002		

*Significant at $\alpha < 0.05$.

The demographic variables of Parent Education, Family Make-Up, and Aid to Families with Dependent Children were not included as independent contributors. However, they did influence the above relationship through their high intercorrelations with the Student Mobility variable, as shown in Appendix Table B3.

As the overall regression was found to be significant (Table 20), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 21 is a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Reading-1981).

Table 21 shows that the significant relationship between Reading-1981 and the three independent variables of Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Student Mobility-1981 was caused primarily by its correlation with the Student Mobility variable. Student Mobility accounted for 39.6% of the variation in the Reading-1981 variable, as shown in the variable column,

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$R^2 = 0.39563$. This value was significant for $F = 4.294$ at $\alpha = 0.00$.

Table 21.--Summary of the predicted relationship between Grade 2 Reading-1981 and Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Student Mobility-1981.

Variable	Multiple R	R^2	F	Signif. of F
FTA-81	0.07000	0.00490	1.457	0.15
TTDA-81	0.19019	0.03617	0.939	0.35
SMOB-81	0.62899	0.39563	4.294	0.00*

*Significant at $\alpha < 0.05$.

Grade 3: The test of Hypothesis I provided the following data relative to Reading-1981 for Grade 3 (Table 22).

Table 22.--Multiple-regression analysis of Grade 3 Reading-1981 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Parent Education).

Source	df	Mean Square	F	Signif. of F
Regression	3	182.68544	4.02269	0.01*
Residual	31	45.41374		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables

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of Frequency of Teacher Absence, Total Teacher Days Absent, and Parent Education; $F(3,31) = 4.01169$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Family Make-Up, and Aid to Families with Dependent Children were not included as independent contributors. However, they did influence the above relationship through their moderate intercorrelations with the Parent Education variable, as shown in Appendix Table B5.

As the overall regression was found to be significant (Table 22), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 23 is a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Reading-1981).

Table 23.--Summary of the predicted relationship between Grade 3 Reading-1981 and Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Parent Education-1981.

Variable	Multiple R	R ²	F	Signif. of F
FTA-81	0.07000	0.00490	0.035	0.97
TTDA-81	0.36058	0.13002	1.398	0.17
PED-81	0.52935	0.28021	2.543	0.01*

*Significant at $\alpha < 0.05$.

As shown in Table 23, the significant relationship between Reading-1981 and the three independent variables of Frequency of

Teacher Absence-1981, Total Teacher Days Absent-1981, and Parent Education-1981 was caused primarily by its correlation with the Parent Education variable. Parent Education accounted for 28% of the variation in the Reading-1981 variable, as shown in the variable column, $R^2 = 0.28021$. This value was significant for $F = 2.543$ at $\alpha = 0.01$.

Grade 4: The test of Hypothesis I provided the following data relative to Reading-1981, Grade 4 (Table 24).

Table 24.--Multiple-regression analysis of Grade 4 Reading-1981 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children).

Source	df	Mean Square	F	Signif. of F
Regression	3	150.72496	3.27956	0.03*
Residual	31	45.95893		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children; $F(3,31) = 3.27956$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Family Make-Up, and Parent Education were not included as independent contributors. However, they did influence the above relationship through their high

intercorrelations with the variable Aid to Families with Dependent Children, as shown in Appendix Table B7.

Because the overall regression was found to be significant (Table 24), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 25 shows a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Reading-1981).

Table 25.--Summary of the predicted relationship between Grade 4 Reading-1981 and Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Aid to Families with Dependent Children-1981.

Variable	Multiple R	R ²	F	Signif. of F
FTA-81	0.07000	0.00490	1.379	0.17
TTDA-81	0.35575	0.12656	0.604	0.55
AFDC-81	0.49083	0.24092	2.161	0.03*

*Significant at $\alpha < 0.05$.

Table 25 shows that the significant relationship between Reading-1981 and the three independent variables of Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Aid to Families with Dependent Children-1981 was caused primarily by its correlation with the Aid to Families with Dependent Children variable. Aid to Families with Dependent Children accounted for 24% of the

variation in the variable column, $R^2 = 0.24092$. This value was significant for $F = 2.161$ at $\alpha = 0.03$.

Grade 5: The test of Hypothesis I provided the following data relative to Reading-1981, Grade 5 (Table 26).

Table 26.--Multiple-regression analysis of Grade 5 Reading-1981 correlated with two independent variables (Frequency of Teacher Absence and Total Teacher Days Absent).

Source	df	Mean Square	F	Signif. of F
Regression	2	368.31977	3.04859	0.06
Residual	26	120.81652		

Discussion: An analysis of the results shown in Table 26 indicated that no statistically significant correlation existed between reading achievement and the two independent variables of Frequency of Teacher Absence and Total Teacher Days Absent at the $\alpha < 0.05$ level.

Grade 6: The test of Hypothesis I provided the following data relative to Reading-1981, Grade 6 (Table 27).

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Parent Education; $F(3,24) = 3.14041$ at $\alpha < 0.05$.

Table 27.--Multiple-regression analysis of Grade 6 Reading-1981 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Parent Education).

Source	df	Mean Square	F	Signif. of F
Regression	3	130.71852	3.14041	0.04*
Residual	24	41.62466		

*Significant at $\alpha < 0.05$.

The demographic variables of Student Mobility, Family Make-Up, and Aid to Families with Dependent Children were not included as independent contributors. However, they did influence the above relationship through their moderate intercorrelations with the Parent Education variable, as shown in Appendix Table B11.

As the overall regression was found to be significant (Table 27), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 28 includes a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Reading-1981).

As shown in Table 28, the statistically significant relationship between Reading-1981 and the three independent variables of Frequency of Teacher-Absence-1981, Total Teacher Days Absent-1981, and Parent Education-1981 was caused primarily by its correlation with the Parent Education variable. Parent Education accounted for 28% of the variation in the Reading-1981 variable, as shown in the variable

column, $R^2 = 0.28189$. This value was significant for $F = 3.027$ at $\alpha = 0.00$.

Table 28.--Summary of the predicted relationship between Grade 6 Reading-1981 and Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Parent Education-1981.

Variable	Multiple R	R^2	F	Signif. of F
FTA-81	0.07000	0.00490	0.754	0.45
TTDA-81	0.08791	0.00773	0.093	0.92
PED-81	0.53094	0.28189	3.027	0.00*

*Significant at $\alpha < 0.05$.

General Hypothesis II

The proposed relationship between average classroom reading achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha < 0.05$) to the overall relationship between reading achievement and the selected demographic variables of Student Mobility Rate, Aid to Families with Dependent Children, Family Make-Up, and Parent Education for the 1981/82 school year.

Part One--Analysis of all elementary grades (1-6) as a total: 1981/82 school year.

The test of Hypothesis II provided the following data relative to Reading-1982. (See Table 29.)

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children; $F(3,193) = 16.41097$ at $\alpha < 0.05$.

Table 29.--Multiple-regression analysis of Reading-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children).

Source	df	Mean Square	F	Signif. of F
Regression	3	1004.52860	16.41097	0.00*
Residual	193	61.21079		

*Significant at $\alpha < 0.05$.

The demographic variables of Student Mobility, Family Make-Up, and Parent Education were not included as independent contributors. However, they did influence the above relationship through their intercorrelations with the Aid to Families with Dependent Children variable.

Because the overall regression was found to be significant (Table 29), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 30 shows a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Reading-1982).

Table 30 shows that the significant relationship between Reading-1982 and the three independent variables of Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Aid to Families with Dependent Children-1982 was caused primarily by its correlation with the variable Aid to Families with Dependent Children. Aid to Families with Dependent Children accounted for 20% of the

variation in the Reading-1982 variable ($R^2 = 0.2032$), whereas Total Teacher Days Absent accounted for 3.2% of the variation ($R^2 = 0.0323$). These two values, respectively, were significant for $F = 2.374$ at $\alpha = 0.01$ and for $F = 6.433$ at $\alpha = 0.00$.

Table 30.--Summary of the predicted relationship between Reading-1982 and Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Aid to Families with Dependent Children-1982.

Variable	Multiple R	R^2	F	Signif. of F
FTA-82	0.02000	0.0004	1.362	0.17
TTDA-82	0.07998	0.0323	2.374	0.01
AFDC-82	0.45083	0.2032	6.433	0.00*

*Significant at $\alpha < 0.05$.

Part Two--Analysis of each elementary grade as a separate group. The test of Hypothesis II provided the following data.

Grade 1: The test of Hypothesis II provided the following data relative to Reading-1982, Grade 1 (Table 31).

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Family Make-Up; $F(3,31) = 6.77701$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Aid to Families with Dependent Children, and Parent Education were not included as

independent contributors. However, they did influence the above relationship through their intercorrelations with the Family Make-Up variable, as shown in Appendix Table B2.

Table 31.--Multiple-regression analysis of Grade 1 Reading-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Family Make-Up).

Source	df	Mean Square	F	Signif. of F
Regression	3	488.31259	6.77701	0.00*
Residual	31	72.05432		

*Significant at $\alpha < 0.05$.

As the overall regression was found to be significant (Table 31), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 32 contains a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Reading-1982).

Table 32.--Summary of the predicted relationship between Grade 1 Reading-1982 and Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Family Make-Up-1982.

Variable	Multiple R	R ²	F	Signif. of F
FTA-82	0.02000	0.00040	1.500	0.14
TTDA-82	0.16268	0.02647	1.228	0.22
FAM-82	0.62935	0.39608	4.356	0.00*

*Significant at $\alpha < 0.05$.

Table 32 shows that the significant relationship between Reading-1982 and the three independent variables of Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Family Make-Up-1982 was caused by its correlation with the Family Make-Up variable. Family Make-Up accounted for 39.6% of the variation in the Reading-1982 variable, as shown in the variable column, $R^2 = 1.39608$. This value was significant for $F = 4.356$ at $\alpha = 0.00$.

Grade 2: The test of Hypothesis II provided the following data relative to Reading-1982, Grade 2 (Table 33).

Table 33.--Multiple-regression analysis of Grade 2 Reading-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Family Make-Up).

Source	df	Mean Square	F	Signif. of F
Regression	3	394.94803	5.03748	0.00*
Residual	31	76.4.675		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children; $F (3,31) = 5.03748$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Family Make-Up, and Parent Education were not included as independent contributors. However, they did influence the above relationship through their intercorrelations with the Aid to Families with Dependent Children variable, as shown in Appendix Table B4.

Because the overall regression was found to be significant (Table 33), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 34 includes a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Reading-1982).

Table 34.--Summary of the predicted relationship between Grade 2 Reading-1982 and Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Aid to Families with Dependent Children-1982.

Variable	Multiple R	R ²	F	Signif. of F
FTA-82	0.02000	0.00040	0.078	0.93
TTDA-82	0.36055	0.13000	1.958	0.05*
AFDC-82	0.57248	0.32773	3.020	0.00*

*Significant at alpha < 0.05.

As shown in Table 34, the significant relationship between Reading-1982 and the three independent variables of Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Aid to Families with Dependent Children-1982 was caused primarily by its

correlation with Aid to Families with Dependent Children. Aid to Families with Dependent Children accounted for 32.7% of the variation in the Reading-1982 variable ($R^2 = 0.32773$), whereas Total Teacher Days Absent accounted for 13% of the variation ($R^2 = 0.13000$). These two values, respectively, were significant for $F = 3.020$ at $\alpha = 0.00$ and for $F = 1.958$ at $\alpha = 0.05$.

Grade 3: The test of Hypothesis II provided the following data relative to Reading-1982, Grade 3 (Table 35).

Table 35.--Multiple-regression analysis of Grade 3 Reading-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Student Mobility).

Source	df	Mean Square	F	Signif. of F
Regression	3	244.84603	6.10171	0.00*
Residual	31	40.12742		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Student Mobility; $F(3,31) = 6.10171$ at $\alpha < 0.05$.

The demographic variables of Aid to Families with Dependent Children, Family Make-Up, and Parent Education were not included as independent contributors. However, they did influence the above

relationship through their intercorrelations with the Student Mobility variable, as shown in Appendix Table B6.

As the overall regression was found to be significant (Table 35), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 36 contains a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Reading-1982).

Table 36.--Summary of the predicted relationship between Grade 3 Reading-1982 and Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Student Mobility-1982.

Variable	Multiple R	R ²	F	Signif. of F
FTA-82	0.02000	0.00040	0.138	0.89
TTDA-82	0.33952	0.11527	2.096	0.04*
SMOB-82	0.60931	0.37126	3.553	0.00*

*Significant at $\alpha < 0.05$.

Table 36 shows that the significant relationship between Reading-1982 and the three independent variables of Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Student Mobility-1982 was caused by its correlation with Student Mobility and Total Teacher Days Absent. Student Mobility accounted for 37% of the variation in the Reading-1982 variable ($R^2 = 0.37126$), whereas Total Teacher Days Absent accounted for 11.5% of the variation ($R^2 =$

0.11527). These two values, respectively, were significant for $F = 2.096$ at $\alpha = 0.04$ and for $F = 3.553$ at $\alpha = 0.00$.

Grade 4: The test of Hypothesis II provided the following data relative to Reading-1982, Grade 4 (Table 37).

Table 37.--Multiple-regression analysis of Grade 4 Reading-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children).

Source	df	Mean Square	F	Signif. of F
Regression	3	211.84521	3.90992	0.01*
Residual	31	54.18153		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children; $F(3,31) = 3.90992$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Family Make-Up, and Parent Education were not included as independent contributors. However, they did influence the above relationship through their intercorrelations with the Aid to Families with Dependent Children variable, as shown in Appendix Table B8.

Because the overall regression was found to be significant (Table 37), the contribution of each independent variable was tested by

partitioning the total explained sum of squares into its independent components. Table 38 contains a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Reading-1982).

Table 38.--Summary of the predicted relationship between Grade 4 Reading-1982 and Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Aid to Families with Dependent Children-1982.

Variable	Multiple R	R ²	F	Signif. of F
FTA-82	0.02000	0.00040	1.154	0.25
TTDA-82	0.35906	0.12892	2.018	0.05*
AFDC-82	0.52394	0.27451	2.494	0.02*

*Significant at alpha < 0.05.

Table 38 shows that the significant relationship between Reading-1982 and the three independent variables of Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Aid to Families with Dependent Children-1982 was caused by its correlation with Aid to Families with Dependent Children and Total Teacher Days Absent. Aid to Families with Dependent Children accounted for 27.4% of the variation in the Reading-1982 variable ($R^2 = 0.2745$), whereas Total Teacher Days Absent accounted for 12.8% of the variation ($R^2 = 0.12892$). These two values, respectively, were significant for $F = 2.494$ at $\alpha = 0.02$ and for $F = 2.018$ at $\alpha = 0.05$.

Grade 5: The test of Hypothesis II provided the following data relative to Reading-1982, Grade 5 (Table 39).

Table 39.--Multiple-regression analysis of Grade 5 Reading-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children).

Source	df	Mean Square	F	Signif. of F
Regression	3	124.98931	3.10912	0.04*
Residual	25	40.20090		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between reading achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children; $F(3,25) = 3.10912$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Family Make-Up, and Parent Education were not included as independent contributors. However, they did influence the above relationship through their intercorrelations with the Aid to Families with Dependent Children variable, as shown in Appendix Table B10.

As the overall regression was found to be significant (Table 39), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 40 contains a summary of the independent variables

left in the regression equation and their respective individual correlations with the dependent variable (Reading-1982).

Table 40.--Summary of the predicted relationship between Grade 5 Reading-1982 and Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Aid to Families with Dependent Children-1982.

Variable	Multiple R	R ²	F	Signif. of F
FTA-82	0.02000	0.00040	0.234	0.81
TTDA-82	0.10345	0.01070	0.003	0.99
AFDC-82	0.52127	0.27172	2.993	0.00*

*Significant at alpha < 0.05.

Table 40 shows that the significant relationship between Reading-1982 and the three independent variables of Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Aid to Families with Dependent Children-1982 was caused primarily by its correlation with Aid to Families with Dependent Children. Aid to Families with Dependent Children accounted for 27% of the variation in the Reading-1982 variable, as shown in the variable column, $R^2 = 0.27172$. This value was significant for $F = 2.993$ at $\alpha = 0.00$.

Grade 6: The test of Hypothesis II provided the following data relative to Reading-1982, Grade 6 (Table 41).

Discussion: An analysis of the results shown in Table 27 indicated that no statistically significant correlation existed between reading achievement and the two independent variables of Frequency of

Teacher Absence and Total Teacher Days Absent at the $\alpha < 0.05$ level.

Table 41.--Multiple-regression analysis of Grade 6 Reading-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children).

Source	df	Mean Square	F	Signif. of F
Regression	2	15.66617	0.42215	0.66
Residual	25	37.11029		

General Hypothesis III

The proposed relationship between average classroom mathematics achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha < 0.05$) to the overall relationship between mathematics achievement and the selected demographic variables of Student Mobility Rate, Aid to Families with Dependent Children, Family Make-Up, and Parent Education for the 1980/81 school year.

Part One.--Analysis of all elementary grades (1-6) as a total: 1980/81 school year. (See Table 42.)

Discussion: An overall statistically significant correlation existed between mathematics achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Family Make-Up; $F(3,193) = 5.27304$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Parent Education, and Aid to Families with Dependent Children were not included as

independent contributors. However, they did influence the above relationship through their intercorrelations with the Family Make-Up variable, as shown in Table 14.

Table 42.--Multiple-regression analysis of Mathematics-1981 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Family Make-Up).

Source	df	Mean Square	F	Signif. of F
Regression	3	518.91268	5.26304	0.00*
Residual	193	98.59559		

*Significant at $\alpha < 0.05$.

Since the overall regression was found to be significant (Table 42), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 43 includes a summary of the independent variables left in the regression equation and their respective correlations with the dependent variable (Mathematics-1981).

Table 43.--Summary of the predicted relationship between Mathematics-1981 and Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Family Make-Up-1981.

Variable	Multiple R	R ²	F	Signif. of F
FTA-81	0.0700	0.0049	0.656	0.51
TTDA-81	0.1191	0.0142	0.760	0.44
FAM-81	0.2750	0.0756	3.581	0.00*

*Significant at $\alpha < 0.05$.

Table 43 shows that the significant relationship between Mathematics-1981 and the three independent variables of Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Family Make-Up-1981 was caused by its correlation with the Family Make-Up variable. Family Make-Up accounted for 7.6% of the variation in the Mathematics-1981 variable, as shown in the variable column, $R^2 = 0.0756$. This value was significant for $F = 3.582$ at $\alpha = 0.00$.

Part Two--Analysis of each elementary grade as a separate group. The test of Hypothesis III provided the following data.

Grade 1: The test of Hypothesis III provided the following data relative to Mathematics-1981, Grade 1 (Table 44).

Table 44.--Multiple-regression analysis of Grade 1 Mathematics-1981 correlated with two independent variables (Frequency of Teacher Absence and Total Teacher Days Absent).

Source	df	Mean Square	F	Signif. of F
Regression	2	326.76849	3.10340	0.06
Residual	32	105.30602		

Discussion: Analysis of the results shown in Table 44 indicated that no statistically significant correlation existed between mathematics achievement and the two independent variables of Frequency of Teacher Absence and Total Teacher Days Absent at the $\alpha < 0.05$ level.

Grade 2: The test of Hypothesis III provided the following data relative to Mathematics-1981, Grade 2 (Table 45).

Table 45.--Multiple-regression analysis of Grade 2 Mathematics-1981 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children).

Source	df	Mean Square	F	Signif. of F
Regression	3	283.22698	4.77684	0.00*
Residual	31	59.29116		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between mathematics achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children; $F(3,31) = 4.77688$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Parent Education, and Family Make-Up were not included as independent contributors. However, they did influence the above relationship through their high intercorrelations with the Aid to Families with Dependent Children variable, as shown in Appendix Table B3.

As the overall regression was found to be significant (Table 45), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent

components. Table 46 includes a summary of the independent variables left in the regression equation and their respective correlations with the dependent variable (Mathematics-1981).

Table 46.--Summary of the predicted relationship between Grade 2 Mathematics-1981 and Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Aid to Families with Dependent Children-1981.

Variable	Multiple R	R ²	F	Signif. of F
FTA-81	0.07000	0.00490	0.312	0.75
TTDA-81	0.34352	0.11800	2.137	0.04*
AFDC-81	0.56226	0.31614	2.997	0.00*

*Significant at alpha < 0.05.

Table 46 shows that the significant relationship between Mathematics-1981 and the three independent variables of Frequency of Teacher Absence-1981, Total Teacher Days Absent-1981, and Aid to Families with Dependent Children-1981 was caused by its correlation with Aid to Families with Dependent Children and Total Teacher Days Absent. Aid to Families with Dependent Children accounted for 31.6% of the variation in the Mathematics-1981 variable ($R^2 = 0.31614$), whereas Total Teacher Days Absent accounted for 11.8% of the variation ($R^2 = 0.11800$). These two values, respectively, were significant for $F = 2.997$ at $\alpha = 0.00$ and for $F = 2.137$ at $\alpha = 0.04$.

Grade 3: The test of Hypothesis III provided the following data relative to Mathematics-1981, Grade 3 (Table 47).

Table 47.--Multiple-regression analysis of Grade 3 Mathematics-1981 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Family Make-Up).

Source	df	Mean Square	F	Signif. of F
Regression	3	220.40073	2.64832	0.06
Residual	31	83.22274		

Discussion: An analysis of the results shown in Table 47 indicated that no statistically significant correlation existed between mathematics achievement and the two independent variables of Frequency of Teacher Absence and Total Teacher Days Absent at the $\alpha < 0.05$ level.

Grade 4: The test of Hypothesis III provided the following data relative to Mathematics-1981, Grade 4 (Table 48).

Table 48.--Multiple-regression analysis of Grade 4 Mathematics-1981 correlated with two independent variables (Frequency of Teacher Absence and Total Teacher Days Absent).

Source	df	Mean Square	F	Signif. of F
Regression	2	52.27680	0.60962	0.54
Residual	32	85.75320		

Discussion: Analysis of the results shown in Table 48 indicated that no statistically significant correlation existed between mathematics achievement and the two independent variables of Frequency of Teacher Absence and Total Teacher Days Absent at the $\alpha < 0.05$ level.

Grade 5: The test of Hypothesis III provided the following data relative to Mathematics-1981, Grade 5 (Table 49).

Table 49.--Multiple-regression analysis of Grade 5 Mathematics-1981 correlated with two independent variables (Frequency of Teacher Absence and Total Teacher Days Absent).

Source	df	Mean Square	F	Signif. of F
Regression	2	399.61844	3.22554	0.06
Residual	26	123.89212		

Discussion: Analysis of the results shown in Table 49 indicated that no statistically significant correlation existed between mathematics achievement and the two independent variables of Frequency of Teacher Absence and Total Teacher Days Absent at the $\alpha < 0.05$ level.

Grade 6: The test of Hypothesis III provided the following data relative to Mathematics-1981, Grade 6 (Table 50).

Table 50.--Multiple-regression analysis of Grade 6 Mathematics-1981 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children).

Source	df	Mean Square	F	Signif. of F
Regression	3	80.41472	1.44269	0.25
Residual	24	55.73926		

Discussion: An analysis of the results shown in Table 50 indicated that no statistically significant correlation existed between mathematics achievement and the two independent variables of Frequency of Teacher Absence and Total Teacher Days Absent at the $\alpha < 0.05$ level.

General Hypothesis IV

The proposed relationship between average classroom mathematics achievement and teacher absenteeism (as defined by Frequency of Teacher Absence [FTA] and Total Teacher Days Absent [TTDA]) will contribute significantly ($\alpha < 0.05$) to the overall relationship between mathematics achievement and the selected demographic variables of Student Mobility Rate, Aid to Families with Dependent Children, Family Make-Up, and Parent Education for the 1981/82 school year.

Part One.--Analysis of all elementary grades (1-6) as a total: 1981/82 school year.

The test of Hypothesis IV provided the following data relative to Mathematics-1982. (See Table 51.)

Table 51.--Multiple-regression analysis of Mathematics-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children).

Source	df	Mean Square	F	Signif. of F
Regression	3	692.76946	8.77647	0.00*
Residual	193	78.93484		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between mathematics achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children; $F(3,193) = 8.77647$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Family Make-Up, and Parent Education were not included as independent contributors. However, they did influence the above relationship even with their low intercorrelations with the Aid to Families with Dependent Children variable, as shown in Table 15.

As the overall regression was found to be significant (Table 51), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 52 contains a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Mathematics-1982).

Table 52.--Summary of the predicted relationship between Mathematics-1982 and Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Aid to Families with Dependent Children-1982.

Variable	Multiple R	R ²	F	Signif. of F
FTA-82	0.07000	0.0049	1.631	0.10
TTDA-82	0.21045	0.0442	2.800	0.00*
AFDC-82	0.36460	0.1200	4.076	0.00*

*Significant at alpha < 0.05.

As shown in Table 52, the significant relationship between Mathematics-1982 and the three independent variables of Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Aid to Families with Dependent Children-1982 was caused by its correlation with Aid to Families with Dependent Children and Total Teacher Days Absent. Aid to Families with Dependent Children accounted for 12% of the variation in the Mathematics-1982 variable ($R^2 = 0.1200$), whereas Total Teacher Days Absent accounted for 4.4% of the variation ($R^2 = 0.0442$). These two values were significant for $F = 2.800$ at alpha = 0.00 and for $F = 4.076$ at alpha = 0.00, respectively.

Part Two--Analysis of each elementary grade as a separate group. The test of Hypothesis IV provided the following data.

Grade 1: The test of Hypothesis IV provided the following data relative to Mathematics-1982 for Grade 1 (Table 53).

Table 53.--Multiple-regression analysis of Grade 1 Mathematics-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Family Make-Up).

Source	df	Mean Square	F	Signif. of F
Regression	3	257.38716	2.91189	0.05*
Residual	31	88.39188		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between mathematics achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Family Make-Up; $F(3,31) = 2.91189$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Aid to Families with Dependent Children, and Parent Education were not included as independent contributors. However, they did influence the above relationship through their intercorrelations with the Family Make-Up variable, as shown in Appendix Table B2.

As the overall regression was found to be significant (Table 53), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 54 contains a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Mathematics-1982).

Table 54.--Summary of the predicted relationship between Grade 1 Mathematics-1982 and Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Family Make-Up-1982.

Variable	Multiple R	R ²	F	Signif. of F
FTA-82	0.07000	0.00490	1.001	0.32
TTDA-82	0.11652	0.01358	0.766	0.44
FAM-82	0.46888	0.21984	2.863	0.00*

*Significant at alpha < 0.05.

Table 54 shows that the significant relationship between Mathematics-1982 and the three independent variables of Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Family Make-Up-1982 was caused primarily by its correlation with the Family Make-Up variable. Family Make-Up accounted for 22% of the variation in the Mathematics-1982 variable, as shown in the variable column, $R^2 = 0.21984$. This value was significant for $F = 2.863$ at $\alpha = 0.00$.

Grade 2: The test of Hypothesis IV provided the following data relative to Mathematics-1982, Grade 2 (Table 55).

Discussion: An overall statistically significant correlation existed between mathematics achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Family Make-Up; $F(3,31) = 5.67504$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Aid to Families with Dependent Children, and Parent Education were not included as independent contributors. However, they did influence the above

relationship through their intercorrelations with the Family Make-Up variable, as shown in Appendix Table B4.

Table 55.--Multiple-regression analysis of Grade 2 Mathematics-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Family Make-Up).

Source	df	Mean Square	F	Signif. of F
Regression	3	405.14512	5.67504	0.00*
Residual	31	71.39068		

*Significant at $\alpha < 0.05$.

As the overall regression was found to be significant (Table 55), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 56 shows a summary of the independent variables left in the regression equation and their respective individual correlations with the dependent variable (Mathematics-1982).

As shown in Table 56, the significant relationship between Mathematics-1982 and the three independent variables of Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Family Make-Up-1982 was caused by its correlation with Family Make-Up and Total Teacher Days Absent. The Family Make-Up variable accounted for 35% of the variation in the Mathematics-1982 variable ($R^2 = 0.3545$), whereas Total Teacher Days Absent accounted for 24% of the variation ($R^2 =$

0.24249). These two values were significant, respectively, for $F = 2.403$ at $\alpha = 0.02$ and for $F = 2.319$ at $\alpha = 0.02$.

Table 56.--Summary of the predicted relationship between Grade 2 Mathematics-1982 and Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Family Make-Up-1982.

Variable	Multiple R	R ²	F	Signif. of F
FTA-82	0.07000	0.00490	1.192	0.24
TTDA-82	0.49244	0.24249	2.403	0.02*
FAM-82	0.59540	0.35450	2.319	0.02*

*Significant at $\alpha < 0.05$.

Grade 3: The test of Hypothesis IV provided the following data relative to Mathematics-1982, Grade 3 (Table 57).

Table 57.--Multiple-regression analysis of Grade 3 Mathematics-1982 correlated with two independent variables (Frequency of Teacher Absence and Total Teacher Days Absent).

Source	df	Mean Square	F	Signif. of F
Regression	2	160.34046	1.77898	0.18
Residual	32	90.13078		

Discussion: An analysis of the results shown in Table 57 indicated that no statistically significant correlation existed between mathematics achievement and the two independent variables of Frequency of Teacher Absence and Total Teacher Days Absent at $\alpha < 0.05$.

Grade 4: The test of Hypothesis IV provided the following data relative to Mathematics-1982, Grade 4 (Table 58).

Table 58.--Multiple-regression analysis of Grade 4 Mathematics-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Parent Education).

Source	df	Mean Square	F	Signif. of F
Regression	3	198.30395	3.64918	0.02*
Residual	31	54.34213		

*Significant at $\alpha < 0.05$.

Discussion: An overall statistically significant correlation existed between mathematics achievement and the three independent variables of Frequency of Teacher Absence, Total Teacher Days Absent, and Parent Education; $F(3,31) = 3.64918$ at $\alpha < 0.05$.

The demographic variables of Student Mobility, Family Make-Up, and Aid to Families with Dependent Children were not included as independent contributors. However, they did influence the above relationship through their intercorrelations with the Parent Education variable, as shown in Appendix Table B8.

As the overall regression was found to be significant (Table 58), the contribution of each independent variable was tested by partitioning the total explained sum of squares into its independent components. Table 59 contains a summary of the independent variables

left in the regression equation and their respective individual correlations with the dependent variable (Mathematics-1982).

Table 59.--Summary of the predicted relationship between Grade 4 Mathematics-1982 and Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Parent Education-1982.

Variable	Multiple R	R ²	F	Signif. of F
FTA-82	0.07000	0.00490	1.957	0.05*
TTDA-82	0.35502	0.12604	2.810	0.00*
PED-82	0.51086	0.26098	2.379	0.02*

*Significant at alpha < 0.05.

Table 59 shows that the significant relationship between Mathematics-1982 and the three independent variables of Frequency of Teacher Absence-1982, Total Teacher Days Absent-1982, and Parent Education-1982 was caused primarily by its correlation with the variables Parent Education and Total Teacher Days Absent. Parent Education accounted for 26% of the variation in the Mathematics-1982 variable ($R^2 = 0.26098$), Total Teacher Days Absent accounted for 12.6% of the variation ($R^2 = 0.12604$), and Frequency of Teacher Absence accounted for .5% of the variation ($R^2 = 0.0049$). These values were significant for $F = 2.379$ at $\alpha = 0.02$, for $F = 2.810$ at $\alpha = 0.00$, and for $F = 1.957$ at $\alpha = 0.05$, respectively.

Grade 5: The test of Hypothesis IV provided the following data relative to Mathematics-1982, Grade 5 (Table 60).

Table 60.--Multiple-regression analysis of Grade 5 Mathematics-1982 correlated with three independent variables (Frequency of Teacher Absence, Total Teacher Days Absent, and Aid to Families with Dependent Children).

Source	df	Mean Square	F	Signif. of F
Regression	3	110.28302	2.55011	0.07
Residual	25	43.24645		

Discussion: An analysis of the results shown in Table 60 indicated that no statistically significant correlation existed between mathematics achievement and the two independent variables of Frequency of Teacher Absence and Total Teacher Days Absent at the $\alpha < 0.05$ level.

Grade 6: The test of Hypothesis IV provided the following data relative to Mathematics-1982, Grade 6 (Table 61).

Table 61.--Multiple-regression analysis of Mathematics-1982 correlated with two independent variables (Frequency of Teacher Absence and Total Teacher Days Absent).

Source	df	Mean Square	F	Signif. of F
Regression	2	53.74842	1.07171	0.35
Residual	25	50.15214		

Discussion: An analysis of the results shown in Table 61 indicated that no statistically significant correlation existed between

mathematics achievement and the two independent variables of Frequency of Teacher Absence and Total Teacher Days Absent at $\alpha < 0.05$.

Summary

The analysis of data was performed using a multiple-regression approach, which included the forward inclusion of two independent variables: Frequency of Teacher Absence and Total Teacher Days Absent.

The results indicated that for General Hypothesis I there was no relationship between teacher absenteeism (Frequency of Teacher Absence or Total Teacher Days Absent) and average classroom reading achievement for the 1980/81 school year. This finding was the same when considering each grade (1-6) separately, as well as when considering the total of all elementary classrooms.

The results indicated that for General Hypothesis II there was found to be a relationship between teacher absenteeism (Total Teacher Days Absent) and average classroom reading achievement for the 1981/82 school year in grades 2, 3, and 4, as well as for the total of all elementary classrooms.

For General Hypothesis III the results indicated there was a relationship between teacher absenteeism (Total Teacher Days Absent) and average classroom mathematics achievement for the 1980/81 school year in grade 3.

For General Hypothesis IV the results indicated there was a relationship between teacher absenteeism (Total Teacher Days Absent) and average classroom mathematics achievement for the 1981/82 school

year in grades 2 and 4, as well as for the total of all elementary classrooms. A relationship was also found to exist between teacher absenteeism (Frequency of Teacher Absence) and average classroom mathematics achievement for the 1981/82 school year in grade 4.

These findings, their implications, and suggestions for using the results of this research are presented and discussed further in Chapter V.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

This study was designed to determine whether elementary teachers' (grades 1-6) absenteeism had an effect on reading and/or mathematics achievement of pupils assigned to their classrooms. The investigator reviewed the teacher absence data and pupil achievement information for the school years 1980/81 and 1981/82. He sought to answer two specific questions: (1) What has been the effect of elementary teachers' total absenteeism on elementary pupils' achievement in the areas of reading and mathematics? and (2) What has been the effect of elementary teachers' frequency of absenteeism on elementary pupils' achievement in the areas of reading and mathematics? This analysis was conducted by looking at grades 1 through 6 as a total group and by examining each grade level as a separate group.

The research design consisted of a multiple-regression approach, incorporating the forward inclusion of two groups of independent variables. The first group of independent variables consisted of Frequency of Teacher Absence and Total Teacher Days Absent. The second group included Aid to Families with Dependent Children, Student Mobility Rate, Parent Education, and Family Make-Up. The forward-inclusion approach allowed the first set of independent variables to be

considered before the second set. This technique did not result in distortion of the real-life situation because the relationship of reading and mathematics achievement to parental education and socio-economic status has been confirmed by many researchers and was not the primary subject or concern in this project.

General Hypothesis I was formulated to determine whether there was a relationship between average classroom reading achievement in 1980/81 and teacher absenteeism, including both Frequency of Teacher Absence and Total Teacher Days Absent. The general hypothesis was examined from two perspectives: the total elementary pupils (grades 1-6) who took the Stanford Achievement Reading Test and each grade (1-6) separately, using the same test results.

The results of the analysis performed using a multiple-regression analysis with the forward inclusion of the variables Frequency of Teacher Absence and Total Teacher Days Absent showed that General Hypothesis I was not confirmed when viewed from the perspective of all elementary grades as a total. In addition, General Hypothesis I was not confirmed when the data were reviewed for each grade separately.

General Hypothesis II was formulated to determine whether there was a relationship between average classroom reading achievement in 1981/82 and teacher absenteeism, including both Frequency of Teacher Absence and Total Teacher Days Absent. The general hypothesis was examined from two perspectives: the total elementary pupils (grades

1-6) who took the Stanford Achievement Reading Test and each grade (1-6) separately, using the same test results.

The data were analyzed using a multiple-regression approach with the forward inclusion of the variables Frequency of Teacher Absence and Total Teacher Days Absent. The results of the analysis showed that General Hypothesis II was confirmed from the perspective of all elementary grades as a total. The data showed that there was a statistically significant relationship between Total Teacher Days Absent and Reading Achievement for the 1981/82 school year. In addition, the data analysis partially confirmed General Hypothesis II when the analysis was conducted for each grade (1-6) separately. The data showed that there was a statistically significant relationship between Total Teacher Days Absent and reading achievement in grades 2, 3, and 4.

General Hypothesis III was designed to determine whether there was a relationship between average classroom mathematics achievement in 1980/81 and teacher absenteeism, including both Frequency of Teacher Absence and Total Teacher Days Absent. The general hypothesis was examined from two perspectives: total elementary pupils (grades 1-6) who took the Stanford Achievement Mathematics Test and each grade (1-6) separately, using the same test results.

The results were analyzed using a multiple-regression approach with the forward inclusion of the variables Frequency of Teacher Absence and Total Teacher Days Absent. The results showed that General Hypothesis III was not confirmed when viewed from the perspective of

all elementary grades as a total. The data partially confirmed General Hypothesis III when the analysis was conducted for each grade (1-6) separately. The data showed that there was a statistically significant relationship between Total Teacher Days Absent and mathematics achievement in grade 2.

General Hypothesis IV was formulated to determine whether there was a relationship between average classroom mathematics achievement in 1981/82 and teacher absenteeism, including both Frequency of Teacher Absence and Total Teacher Days Absent. The general hypothesis was examined from two perspectives: total elementary pupils (grades 1-6) who took the Stanford Achievement Mathematics Test and each grade (1-6) separately, using the same test results.

The results were analyzed using a multiple-regression approach with the forward inclusion of the variables Frequency of Teacher Absence and Total Teacher Days Absent. The results showed that General Hypothesis IV was confirmed when viewed from the perspective of all elementary grades as a total. The data showed that there was a statistically significant relationship between Total Teacher Days Absent and mathematics achievement for the 1981/82 school year. In addition, the data partially confirmed General Hypothesis IV when the analysis was conducted for each grade (1-6) separately. There was a statistically significant relationship between Total Teacher Days Absent and mathematics achievement in grades 2 and 4. In addition, a statistically significant relationship existed between Frequency of Teacher Absence and mathematics achievement in grade 4.

The findings of this study related to all elementary grades as a total are illustrated in Table 62.

Table 62.--Summary of results of the research analysis for all elementary grades as a total.

Grades 1-6	Reading	Mathematics
1980/81	Not Confirmed	Not Confirmed
1981/82	<u>Confirmed for</u> <u>Total Teacher</u> <u>Days Absent</u>	<u>Confirmed for</u> <u>Total Teacher</u> <u>Days Absent</u>

The findings of this study related to each individual grade level are illustrated in Table 63.

Analysis of the data showed that teacher absenteeism did contribute to second graders' achievement in reading in both 1980/81 and 1981/82 and to their mathematics achievement in 1980/81; to third graders' reading achievement in 1981/82; and to fourth graders' reading and mathematics achievement in 1981/82. The data further showed that, when all grades were considered as a total, teacher absenteeism contributed to students' achievement in both reading and mathematics in 1981/82.

It should be noted that in attempting to answer question one, "What has been the effect of elementary teachers' total absenteeism on elementary pupils' achievement in the area of reading and/or mathematics?," Total Teacher Days Absent was shown to contribute to

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student achievement in the middle grades (2, 3, and 4), particularly during the 1981/82 school year. Further, it should be pointed out that concerning question two, "What has been the effect of elementary teachers' frequency of absenteeism on elementary pupils' achievement in the areas of reading and mathematics?", Frequency of Teacher Absence contributed to pupil learning only in grade 4, for the year 1981/82, and only in mathematics.

Table 63.--Summary of results of the research analysis, by grade level.

Grade	Reading		Mathematics	
	1980/81	1981/82	1980/81	1981/82
1	Not Confirmed	Not Confirmed	Not Confirmed	Not Confirmed
2	Not Confirmed	<u>Confirmed</u> for Total Teacher Days Absent	<u>Confirmed</u> for Total Teacher Days Absent	<u>Confirmed</u> for Total Teacher Days Absent
3	Not Confirmed	<u>Confirmed</u> for Total Teacher Days Absent	Not Confirmed	Not Confirmed
4	Not Confirmed	<u>Confirmed</u> for Total Teacher Days Absent	Not Confirmed	<u>Confirmed</u> for Total Teacher Days Absent & Frequency of Teacher Absence
5	Not Confirmed	Not Confirmed	Not Confirmed	Not Confirmed
6	Not Confirmed	Not Confirmed	Not Confirmed	Not Confirmed

Discussion

Harnischfeger and Wiley claimed that the cost in student learning when the regular teacher is absent is undoubtedly the most critical cost with which administrators must be concerned.¹ They suggested that as the relationship between teacher contact time and student progress becomes widely known, more difficult questions will be asked about the causes of lost instruction at school. One serious loss of teaching time occurs when regular teachers are absent and substitutes are in the classroom. Kopelman, Schneller, and Silver stated that "illnesses" are especially likely to occur in those organizations that have a paid-leave program. According to these authors, "a common behavioral outcome of such a program might be labeled Parkinson's Law of Sick Leave Abuse: the days lost due to sickness expand to equal the number of paid sick days allowed." Indeed, they stated, "there is evidence indicating that organizations with paid sick leave programs experience nearly twice the rate of absenteeism compared to organizations without such programs."²

The attention to teacher absenteeism led Elliott and Manlove to observe that

Among other things, schools may be bargaining away student progress, and neither party at the table has that right. Student irresponsibility is evidenced in such phenomena as increasing

¹Annegret Harnischfeger and David E. Wiley, "Schooling Cutbacks and Achievement Declines: Can We Afford Them?" Administrator's Notebook 24 (1975).

²Richard E. Kopelman, George O. Schneller, and John J. Silver, Jr., "Parkinson's Law and Absenteeism: A Program to Rein in Sick Leave Costs," Personnel Administrator (May 1981): 57.

vandalism and falling test scores. We suggest the frequently absented teacher could be one of the many causal factors.³

Teacher absence was also highlighted by Bamber, who stated, "Public schools have certain expectations for regular attendance of students and teachers. When they are not met, classroom performance suffers." She continued:

Even more dire consequences may result when teachers are absent. Most substitutes, called on short notice with no time for preparation, are little more than babysitters in the classroom. Even those who know their subject are at a disadvantage because they do not know the students, and it may be harder for them to maintain discipline.⁴

Olson highlighted the lack of effectiveness of substitute teachers. In his study he found that "what clearly stands out was the abysmal performance of substitute teachers in contrast to that of the regular classroom teacher." He concluded that "either substitute teacher performance must be improved or alternatively less expensive methods of handling teacher absences should be initiated."⁵ In response to Olson's findings, the National Association of Secondary School Principals suggested that "if substitutes are as ineffective as the Olson Study reported, then there is concern that substitutes

³Peggy G. Elliott and Donald C. Manlove, "The Cost of Skyrocketing Teacher Absenteeism," Phi Delta Kappan, (December 1977): 210.

⁴Chrissie Bamber, "Student and Teacher Absenteeisms," Phi Delta Kappa Educational Foundation, Fastback 126 (Bloomington, Ind.: Phi Delta Kappa, 1979), p. 12.

⁵M. N. Olson, "Identifying Quality in School Classroom: Some Problems and Some Answers," Special Report to the Metropolitan School Study Council, New York, New York, January 1971.

actually constitute a cutback in real instructional time and consequently a cutback in student achievement."⁶

These statements, as well as the findings of other researchers, highlight the importance of teacher-student contact time and emphasize that the learning period cannot, in all likelihood, be duplicated through the use of substitutes. The findings of the present study have shown that teacher absenteeism can have a negative effect on student achievement in both reading and mathematics. It is of particular interest that teacher absenteeism seemed to have the greatest effect on achievement in the second, third, and fourth grades. There appears to be sufficient evidence from this study to indicate that school districts should begin to take some steps either to reduce teacher absenteeism and thereby contribute to the improved achievement of elementary pupils, or to develop an alternative method of assigning substitute teachers in an attempt to reduce the negative effect of teacher absence.

To address the continuing problem of teacher absenteeism, the National Association of Secondary School Principals proposed the following policies for teachers and substitutes:

1. Require all substitute teachers to have the credentials and skills of the regular contract teacher.
2. Provide inservice preparation time for persons to be employed as substitutes.
3. Provide some assistance to the Principal in monitoring those classrooms where a substitute is assigned.

⁶"Absent Teachers, Another Handicap for Students," The Practitioner (National Association of Secondary School Principals) 5 (May 1979): 5.

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4. Develop a system that recognizes good attendance and rewards it in some significant way.
5. Insist on more teacher responsibility for the continuity of instruction.
6. Principals could take a more personal interest in attendance:
 - a. Praise good attendance.
 - b. Show concern for teachers who have been absent.
 - c. Keep building records on teacher attendance.
 - d. Document excessive absence, show that absence is a serious matter.
7. Provide a method by which teachers can help monitor the attendance program.

Yet another plan for dealing with teacher absenteeism was suggested by Lewis, who proposed developing a computer-produced employee absenteeism profile for each employee in the school district.⁸ Such a plan would allow employees to track their own attendance records and would enable administrators to identify absenteeism patterns among staff members. Lewis went on to propose that the first step in combating the problem of employee absenteeism is to show everyone the extent to which absenteeism affects the schools.

Hayes pointed out that absenteeism is rarely considered a serious problem, and therefore absenteeism flourishes precisely where it is ignored. Hayes stated, "People will come to work regularly only if it is to their advantage to do so. If the accepted behavior in a company includes frequent absences, most employees will take every opportunity to stay home and get paid for it." Therefore, Hayes proposed, "it is up to the manager to create a positive, rewarding,

⁷Ibid., pp. 7-9

⁸James Lewis, Jr., "Using a Computer to Monitor Teacher Absenteeism Can Save Schools Money and Increase the Time Teachers Spend in Class," The American School Board Journal (September 1982): 30-32.

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'productive' environment where people feel impelled to appear regularly and perform as best they can." He formulated the following plan to develop an attendance-oriented staff:

1. Be committed to attendance.
2. Give recognition to those who report to work every day.
3. Don't be overstrict on time rules.
4. Pay personal attention to your employees.⁹
5. Show people the importance of their work.

In another study on how to control absenteeism, Scott and Markham wrote,

Although there is a large amount of research dealing with the reasons why employees are absent, there is surprisingly little written on the effectiveness of basic control policies and practices used to deal with this problem. . . . We have found that when managers talk with us about implementing a particular absenteeism control program, they often have not given any thought to their overall strategy or to how a new control method might affect other personnel practices.¹⁰

With this in mind, the authors conducted a survey of 987 organizations to determine what methods they used to control absenteeism and how effective those methods were. The findings of Scott and Markham's survey are shown in Table 64.

After reviewing the methods used to control absenteeism, Scott and Markham provided the following guidelines for developing policies and practices:

⁹James L. Hayes, "Absenteeism, The Death of Productivity," Credit and Financial Management (December 1981): 25, 32.

¹⁰Daw Scott and Steve Markham, "Absenteeism Control Methods: A Survey of Practices and Results," Personnel Administrator 27 (June 1982): 73-76.

Table 64.--Absenteeism control methods, ranked by rated effectiveness.

Table 64. --Absenteeism control methods, ranked by rated effectiveness.

Control Method	Average Rated Effectiveness	Percent in Use	Absence Rate: Nonusers	Absence Rate: Users
1. A consistently applied attendance policy	3.47	79%	4.8%	4.2%
2. Termination based on excessive absenteeism	3.47	96%	4.4%	4.3%
3. Progressive discipline for excessive absenteeism	3.43	91%	4.8%	4.3%
4. Identification and discipline of employees abusing attendance policies	3.39	88%	4.8%	4.3%
5. At least monthly analysis of daily attendance information	3.38	57%	4.7%	4.1%
6. Daily attendance records maintained by personnel department	3.36	48%	4.6%	4.1%
7. Employee call-in to give notice of absence	3.35	99%	7.3%	4.3%
8. A clearly-written attendance policy	3.33	76%	4.2%	4.4%
9. Daily attendance records maintained by supervisors	3.31	68%	3.8%	4.6%
10. Allow employees to build a paid "absence bank" to be cashed in at a percentage at a later date, or added to next year's vacation time	3.28	10%	4.3%	4.2%
11. Employee interviewed after an absence	3.26	35%	4.4%	4.2%
12. Flexible work schedules	3.25	21%	4.3%	4.5%
13. Inclusion of absenteeism rate on employee job performance appraisal	3.19	66%	4.5%	4.2%

Table 64.--Continued.

Control Method	Average Rated Effectiveness	Percent in Use	Absence Rate: Nonusers	Absence Rate: Users
14. Perfect/good attendance banquet and award ceremony	3.19	9%	4.4%	3.8%
15. Formal work safety training program	3.17	42%	4.2%	4.4%
16. Screen recruits' past attendance records before making a selection decision	3.16	67%	4.7%	4.2%
17. Supervisory training in attendance control	3.15	39%	4.4%	4.2%
18. Inclusion of work unit absenteeism on supervisor's performance appraisal	3.15	18%	4.4%	4.2%
19. Wiping clean a problem employee's record by subsequent good attendance	3.14	47%	4.3%	4.3%
20. Improvements of safety on the job	3.13	57%	4.2%	4.4%
21. Public recognition of employee's good attendance (i.e., in-house bulletin boards or newsletters, etc.)	3.10	25%	4.6%	3.6%
22. Job enrichment/enlargement/or rotation implemented to reduce absenteeism	3.09	12%	4.3%	4.2%
23. A component on attendance in a formal employee orientation program for new hires	3.07	71%	4.5%	4.3%
24. Require written doctor's excuse for illness/accidents	3.05	77%	4.0%	4.4%

Table 64.--Continued.

Control Method	Average Rated Effectiveness	Percent in Use	Absence Rate: Nonusers	Absence Rate: Users
25. Spot visitation (or phone call) to check up at employee residence by doctor/nurse/detective/other employee	3.00	21%	4.3%	4.3%
26. Operation of day care for employee's department	3.00	1%	4.3%	3.6%
27. Substance abuse program (drugs, alcohol, etc.)	2.99	28%	4.4%	4.2%
28. The absenteeism control policy has been negotiated in the union contract	2.98	32%	4.3%	4.9%
29. Employee bonus (monetary) for perfect attendance	2.96	15%	4.4%	4.1%
30. Education programs in health/diet/home safety	2.81	13%	4.4%	3.9%
31. Attendance lottery or poker system (random reward)	2.77	1%	4.3%	4.8%
32. Peer pressure encouraged by requiring peers to fill in for absent employee	2.62	43%	4.3%	4.4%
33. Chart biorythms for accident-prone day	2.50	1%	4.3%	5.3%
34. Letter to spouse indicating lost earnings of employee due to absenteeism	2.50	1%	4.4%	1.8%

Source: Daw Scott and Steve Markham, "Absenteeism Control Methods: A Survey of Practices and Result," Personnel Administrator 27 (June 1982): 73-76.

1. Identify and re-examine the current methods being used to control absenteeism within the organization. According to the survey certain methods of controlling absenteeism do not have much influence on controlling absenteeism.
2. If you have a policy of terminating employees for excessive absenteeism, examine those policies carefully for loopholes and inconsistencies.
3. Consider the value of using positive inducements to reduce absenteeism. Positive inducements were usually associated with the lower absenteeism.
4. Develop a centralized system for the collection of absenteeism data. It is important to remember that, although simply collecting absenteeism data will somewhat reduce absenteeism, a larger effect will occur if this data is analyzed periodically.
5. Develop a comprehensive program for the control of absenteeism rather than relying on one or two methods to solve the problem.¹¹

In another study related to absenteeism, Allen and Higgins stated that "every organization is a culture. It has its own cultural norms that constitute the expected, supported, and accepted ways of behaving. These norms are mostly unwritten and tell people the way things really are."¹² They went on to state that

Absenteeism has its own subtle but complex norms, and the norms in the following areas influence people either to work or stay home, thus helping to create the absenteeism culture.

1. Leadership commitment. Managerial commitment to attendance goals and its views toward absenteeism do have an important impact on attendance.
2. Leadership modeling. What leaders say about absenteeism is often less important than the way their behavior is viewed by other organization members.
3. Recognition and compensation systems. Employees frequently remark that there is no advantage in reporting for work every day, because no one seems to care. A supervisor reduced

¹¹Ibid.

¹²Robert F. Allen and Michael Higgins, "The Absenteeisms Culture: Becoming Attendance Oriented," Personnel 56 (January-February 1979): 31.

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- absenteeism by 40 percent when letters were written for personnel files at the end of each six month period of perfect attendance, with copies sent to conscientious employees.
4. Organization policies and procedures. Regulations can sometimes cause more problems than they prevent. Sometimes they actually get in the way of good attendance practices. Being five minutes late, even for a good reason, is often looked on less favorably than taking a sick day.
 5. Supervisory interpretation and implementation of policies. The personal link between employees and supervisors can be used in shaping a program. One supervisor tried a positive approach to absenteeism by starting a telephone follow-up to absent employees, expressing concern for the cause of their absence and offering help to them and their families.
 6. Recruitment and selection. Employers ask for information about attendance in reference requests too infrequently.
 7. Employee orientation and training. Attendance norms are established the first day on the job. In a supermarket with low absenteeism, the importance of good attendance and exposure to high-attendance employees were stressed during orientations for new cashiers.
 8. Performance appraisal. Performance appraisal procedures can boost good attendance practices. If attendance rates make a difference in raises and appraisals of performance, and if employees are aware that this information is part of ongoing performance appraisals, attendance patterns are affected.
 9. Health factors. The connection between health and absenteeism is often overlooked or narrowly defined, with little attention being paid to alcoholism, drug abuse, and other stress-related factors.
 10. Job satisfaction. Boredom on the job is frequently ignored; little attention is paid to making the job more interesting or explaining its importance within the organization framework.
 11. The relationship of attendance to specific events. Vacations, holidays, meetings, training sessions, and other events influence the rate of absenteeism.¹³

For an organization to improve the existing absenteeism culture,

Allen and Higgins suggested a systematic effort must be based on:

1. Involvement of employees at all levels. From the chief executive officer to the new employee, involvement is crucial. Each has some kind of direct impact on an organization and contributes to the modeling, rewarding, or supporting of attendance norms. Involvement means more than assigning tasks. Since everyone is affected by change, everyone must participate

¹³Ibid.

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- in shaping change from goal setting at the start to final implementation.
2. Results orientation. Baseline and periodic measurement of attendance, productivity related to attendance, and attendance norms produce data that can be clearly communicated to the entire organization.
 3. Sound data. Accurate program analysis and record keeping assures getting the sound data a program should be based on. This information enables managers to make higher, quality decisions in setting attendance goals.
 4. A positive focus. Punishment intensifies resistance. Giving managers the tools to recognize and reward employees who maintain good attendance records stimulates cultural change.
 5. A systematic approach. Change must be concerned with the factors that influence attendance norms so that managers can improve their skills and build a more effective organization.
 6. Follow-through. Since the change process is an ongoing participatory commitment, management has the opportunity to periodically review, renew, and sustain attendance goals.¹⁴

Conclusion

The findings of this research indicate again that demographic variables show a strong relationship to pupil achievement in mathematics and reading. Although in some cases there was a relationship between teacher absenteeism and pupil learning, the magnitude of that relationship was not nearly as strong as the demographic variables. But it is the opinion of this researcher that as schools may not be able to change demographic factors, they would be negligent if they did not deal with an in-school factor that affects achievement, such as teacher attendance.

Thus it seems that if a school district can make changes that would have such a positive effect on pupils' achievement, every effort should be made to ensure that appropriate programs are implemented to

¹⁴Ibid., p. 32.

accomplish this end. Of course, many plans could be devised for a school district developing an overall strategy for dealing with absenteeism, but this investigator proposes that the following steps be taken in establishing an initial program:

1. Organize an attendance committee composed of individuals from a cross-section of all employee bargaining units.
2. Review all absence data currently being collected. Develop programs through which data can be analyzed in many different ways (employee absence, bargaining unit absence, and building absence).
3. Review the absenteeism control methods listed in Table 67 of this dissertation and develop, with the committee, a program for addressing the school district's absenteeism problem. Recommend this program to the superintendent of schools for approval.
4. Develop evaluation criteria that can be used to measure the effectiveness of the designed program.
5. Review current substitute-teacher-use practices and consider such alternatives as:
 - a. Increasing the use of building substitutes.
 - b. Increasing the amount of inservice training provided to substitute teachers, concentrating on essential skills required for teaching.
 - c. Reviewing assignment practices in an attempt to place substitute teachers in classrooms best suited to their skills.
 - d. Establishing a Substitute Teacher Advisory Committee to address concerns of both substitute and classroom teachers.

e. Developing an evaluation process by which to review the program's effectiveness.

6. Continue to review teacher absenteeism and pupil achievement through the analysis methods used in this study.

By implementing such a program, the Lansing School District might be able to reduce at least one barrier to elementary pupils' achieving their greatest potential. Such a program would be in keeping with the philosophy of Lezotte and Passalacqua, who encouraged researchers to "isolate and estimate the magnitude of 'school effects' by various models, and by so doing [demonstrate] that poor achievement is not totally a function of the students who attend school."¹⁵

Even though this research was designed to examine teacher absenteeism and pupil achievement within the Lansing School District, it is the opinion of this researcher that the findings may indeed have implications for other school districts.

It is proposed that school districts should plan to review their teacher absenteeism records just as carefully as they examine those of pupil absences.

In developing a program or study that could expand on this research, it is important to realize the lack of any organized data related to teacher absenteeism. In an informal survey of several Michigan school districts, it appeared that very little information related to teacher absenteeism is being gathered and analyzed. And,

¹⁵Lawrence W. Lezotte and Joseph Passalacqua, "Individual School Buildings--Accounting for Differences in Measured Pupil Performance," Urban Education (October 1978): 283-91.

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indeed, if such data are being gathered, they are most likely to be used only for the purpose of projecting the economic effect of teacher absences on the school district.

This researcher would suggest that the topic of teacher absence is of such importance, both from the economic and educational effect on a school district, that a plan should be developed that expands the overall knowledge of the topic to include several Michigan school districts.

It is suggested that possibly a statewide educational organization develop a study that would not only examine several districts, but could also serve as developing a self-examination guide that could be used by other districts. This guide would provide for the standardization of the information collected, thus allowing for analysis from one district to another. By implementing such a study program, Michigan schools could be provided with an extremely valuable guide for examining one problem common to all school districts that could be affecting the learning of its pupils.

Suggestions for Further Research

This research was limited to teachers and pupils at the elementary school level, grades 1-6. Future investigators might include teachers and students at both the middle school and senior high school levels.

In addition, this research was designed to compare certain demographics with the school-related variable of teacher absenteeism. In future studies, consideration should be given to further exploring

the relationship of teacher absenteeism to other school-related factors, such as relaxed learning standards, less substantive content, automatic promotions, and other such variables.

This research was limited to an analysis of the total elementary pupils in grades 1 through 6 and to each separate grade level. Future researchers might attempt to analyze teacher absenteeism in individual elementary school buildings.

Further, this research was limited to considering elementary teacher absence for reasons of personal illness and personal reasons only and, as such, did not consider additional days absent for reasons of conferences or inservice education. These additional absences may well add an additional burden to the pupils in the elementary grades.

In addition, research might be considered that would evaluate the relationship between pupil absence and teacher absence. Is it possible that the absence of one leads to or contributes to the absence of the other?

A reapplication and analysis of the present research in other school districts could determine whether the findings of this study are applicable to other districts.

Assuming the suggested absenteeism program is implemented, a follow-up study of the program's effectiveness in eliminating teacher absenteeism as a factor inhibiting pupil achievement would be appropriate.

No one investigator could hope to answer all of the questions related to the effect of teacher absenteeism on elementary pupils'

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achievement. This researcher believes that interesting and useful information was obtained from the study, which, if acted upon, could directly influence the achievement of elementary pupils. In addition, an attempt has been made to identify other questions that seem to be important in understanding elementary pupils or students in middle or senior high school. The answers to these questions could have an important influence on planning for improved staff attendance and hence on student achievement at all grade levels.

APPENDICES

APPENDIX A

DEMOGRAPHIC CHARACTERISTICS OF PUPILS
INCLUDED IN THE STUDY

Table A1.--Number of elementary pupils taking Stanford Achievement Tests in reading in 1980/81, by building number and grade level.

Bldg.	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
1	93	75	71	63	--	--	302
2	62	44	67	50	67	56	346
3	52	50	56	65	62	55	340
4	32	35	31	40	34	36	208
5	57	51	51	52	--	--	211
6	49	40	50	49	57	49	284
7	--	--	--	--	139	115	254
8	49	41	47	49	--	--	186
9	59	54	48	60	--	--	221
10	46	53	64	63	66	54	346
11	44	45	41	41	30	35	236
12	--	--	--	50	63	74	187
13	53	38	53	48	58	54	304
14	--	--	--	--	112	121	233
15	50	67	52	--	--	--	169
16	20	29	29	29	36	38	181
17	42	52	39	46	--	--	179
18	60	55	51	38	--	--	204
19	77	62	81	68	--	--	288
20	33	34	19	27	20	23	156
21	36	43	42	42	--	--	163
22	62	62	47	66	68	57	362
23	32	45	36	41	32	41	227
24	30	48	42	40	32	35	227
25	--	--	--	--	200	148	348
26	84	69	88	70	78	79	468
27	31	43	36	44	40	39	233
28	42	35	32	36	--	--	145
29	55	34	39	52	50	50	280
30	53	58	56	57	60	61	345
31	94	66	99	92	--	--	351
32	51	35	47	55	46	41	275
33	--	--	--	--	154	152	306
34	51	41	52	49	39	51	283
35	building closed						
36	31	42	37	48	42	36	236
37	42	48	47	82	65	69	353
38	36	40	22	28	34	30	190
39	39	43	43	55	47	41	268
40	85	72	79	61	--	--	297
41	66	58	66	75	57	52	374

Source: Taken from the "Overview of Stanford Achievement Test Analysis" report of the Lansing School District, 1980/81.

Table A2.--Number of elementary pupils taking Stanford Achievement Tests in mathematics in 1980/81, by building number and grade level.

Bldg.	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
1	93	74	70	63	--	--	300
2	62	44	67	50	67	56	346
3	52	50	56	65	62	55	340
4	32	35	31	40	34	35	207
5	57	51	51	51	--	--	210
6	49	40	50	39	57	49	284
7	--	--	--	--	139	114	253
8	49	41	46	49	--	--	185
9	58	54	48	60	--	--	220
10	46	53	64	63	66	54	346
11	44	45	41	41	30	35	236
12	--	--	--	51	63	74	188
13	53	38	53	48	58	53	303
14	--	--	--	--	113	121	234
15	51	67	52	--	--	--	170
16	20	29	29	29	36	38	181
17	42	52	39	45	--	--	178
18	60	55	50	38	--	--	203
19	77	62	82	68	--	--	289
20	33	34	18	27	20	23	155
21	36	43	42	42	--	--	163
22	62	62	47	66	68	57	362
23	32	42	36	41	32	41	224
24	30	48	41	40	33	35	227
25	--	--	--	--	200	147	347
26	83	69	89	70	78	81	470
27	31	42	36	44	40	39	232
28	42	35	32	36	--	--	145
29	55	34	38	52	50	49	278
30	53	58	56	57	60	61	345
31	94	66	99	92	--	--	351
32	51	35	46	55	46	41	274
33	--	--	--	--	153	152	305
34	50	42	52	49	39	51	283
35	building closed						
36	30	41	36	48	43	36	234
37	42	48	47	81	65	67	350
38	36	40	22	28	36	30	192
39	40	43	42	55	47	41	268
40	85	72	79	61	--	--	297
41	66	57	66	75	57	52	373

Source: Taken from the "Overview of Stanford Achievement Test Analysis" report of the Lansing School District, 1980/81.

Table A3.--Number of elementary pupils taking Stanford Achievement Tests in reading in 1981/82, by building number and grade level.

Bldg.	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
1	69	79	59	62	--	--	269
2	70	54	45	58	55	64	346
3	40	47	40	50	60	54	291
4	51	33	37	36	44	35	236
5	47	48	45	48	--	--	188
6	40	43	35	53	40	51	262
7	--	--	--	--	108	133	241
8	54	44	40	45	--	--	183
9	57	56	49	48	--	--	210
10	57	43	51	64	54	61	330
11	--	--	--	52	47	53	152
12	38	50	38	50	45	57	278
13	--	--	--	--	117	110	227
14	58	45	53	--	--	--	156
15	48	40	44	41	41	35	249
16	22	18	30	25	19	30	144
17	51	35	43	40	--	--	169
18	47	49	46	53	--	--	195
19	66	70	57	78	--	--	271
20	27	24	30	16	29	24	150
21	32	28	41	39	--	--	140
22	57	56	56	42	60	71	342
23	42	26	39	25	39	27	198
24	37	27	39	37	29	32	201
25	--	--	--	--	158	196	354
26	72	80	71	84	76	74	457
27	34	29	39	36	39	37	214
28	37	25	31	30	--	--	123
29	35	38	36	39	54	44	246
30	50	45	57	58	59	60	329
31	77	82	61	90	--	--	310
32	35	45	30	43	42	38	233
33	--	--	--	--	134	147	281
34	43	53	40	41	48	38	263
35	building closed						
36	28	25	38	36	50	42	219
37	48	43	41	44	73	56	305
38	40	43	52	27	31	35	228
39	35	38	39	40	50	43	245
40	76	75	68	82	54	--	355
41	55	53	56	62	61	59	346

Source: Taken from the "Overview of Stanford Achievement Test Analysis" report of the Lansing School District, 1981/82.

Table A4.--Number of elementary pupils taking Stanford Achievement Tests in mathematics in 1981/82, by building number and grade level.

Bldg.	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
1	69	78	59	63	--	--	269
2	70	54	45	58	55	64	346
3	40	47	40	50	61	54	292
4	51	34	37	36	44	35	237
5	47	48	45	49	--	--	189
6	40	42	35	53	40	50	260
7	--	--	--	--	108	132	240
8	54	44	40	44	--	--	182
9	57	56	49	48	--	--	210
10	57	43	51	64	54	61	330
11	48	40	44	41	41	35	249
12	--	--	--	52	47	52	151
13	38	50	38	50	45	57	278
14	--	--	--	--	125	113	238
15	58	45	55	--	--	--	158
16	22	18	30	23	19	29	141
17	51	35	43	40	--	--	169
18	46	49	46	53	--	--	194
19	66	70	57	78	--	--	271
20	27	24	30	16	29	24	150
21	32	29	41	39	--	--	141
22	57	56	55	42	60	71	341
23	42	26	39	25	39	27	198
24	37	26	39	37	29	32	200
25	--	--	--	--	158	196	354
26	72	80	71	83	76	74	456
27	34	28	37	36	39	37	211
28	37	25	31	30	--	--	123
29	35	38	36	39	53	45	246
30	50	45	55	57	56	59	322
31	77	82	61	89	--	--	309
32	35	45	30	43	42	38	233
33	--	--	--	--	131	147	278
34	43	53	40	41	46	38	261
35	building closed						
36	29	25	38	36	49	42	219
37	48	43	41	44	73	56	305
38	39	43	51	26	31	35	225
39	35	38	39	40	50	43	245
40	76	74	68	82	54	--	354
41	55	53	56	62	62	59	347

Source: Taken from the "Overview of Stanford Achievement Test Analysis" report of the Lansing School District, 1981/82.

Table A5.--Elementary pupil mobility rates: Percentage of pupils entering or leaving a school during the school year.

School Number	Percentage of Mobility	
	1980/81	1981/82
1	53.3	48.2
2	17.5	18.7
3	15.1	16.3
4	54.0	50.2
5	26.6	31.4
6	15.4	13.2
7	22.3	15.3
8	36.3	29.1
9	27.9	35.5
10	30.4	34.7
11	35.0	26.3
12	36.1	41.4
13	31.5	33.0
14	37.9	34.5
15	46.7	42.8
16	47.1	38.0
17	36.9	48.0
18	43.4	35.7
19	22.5	17.3
20	18.8	27.9
21	21.5	21.0
22	21.8	19.0
23	29.6	26.1
24	48.8	50.7
25	27.8	26.3
26	32.5	32.9
27	39.6	28.0
28	59.2	74.9
29	29.0	27.6
30	25.9	21.7
31	32.0	39.4
32	30.1	30.2
33	28.1	28.6
34	26.5	32.8
35	building closed	
36	19.1	22.9
37	32.3	21.9
38	71.4	57.4
39	27.3	18.2
40	28.8	31.3
41	20.0	25.2

Source: Taken from the "Elementary Demographic Data Report" of the Lansing School District, 1980/81 and 1981/82.

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Table A6.--Elementary-student parent education rates: Percentage of parents completing twelfth grade.

School Number	Percentage	
	1980/81	1981/82
1	60.0	55.0
2	84.0	54.0
3	89.0	86.0
4	55.0	61.0
5	77.0	56.0
6	84.0	61.0
7	84.0	61.0
8	74.0	59.0
9	78.0	50.0
10	85.0	55.0
11	63.0	46.0
12	62.0	66.0
13	56.0	62.0
14	56.0	53.0
15	65.0	70.0
16	35.0	47.0
17	59.0	61.0
18	82.0	62.0
19	87.0	64.0
20	75.0	58.0
21	84.0	70.0
22	83.0	53.0
23	66.0	51.0
24	57.0	61.0
25	67.0	56.0
26	83.0	56.0
27	74.0	60.0
28	42.0	53.0
29	55.0	56.0
30	65.0	54.0
31	73.0	58.0
32	78.0	61.0
33	66.0	62.0
34	59.0	47.0
35	building closed	
36		83.0
37		87.0
38		48.0
39		75.0
40		68.0
41		87.0

Source: Taken from the "Elementary Demographic Data Report" of the Lansing School District, 1980/81 and 1981/82.

Table A7.--Aid to Families with Dependent Children rates: Percentage of families within each school receiving Aid to Dependent Children (in percent).

School Number	Percent Receiving AFDC	
	1980/81	1981/82
1	39.3%	38.9%
2	9.4	8.4
3	9.8	7.1
4	52.2	47.1
5	29.0	18.2
6	14.9	12.9
7	11.2	13.2
8	27.4	18.6
9	21.0	18.1
10	15.6	9.8
11	33.0	25.7
12	29.4	22.9
13	33.5	31.2
14	34.0	36.9
15	25.0	22.5
16	43.8	37.1
17	37.4	36.7
18	28.5	26.5
19	18.2	9.3
20	17.3	11.0
21	11.4	24.6
22	20.8	16.4
23	31.6	35.6
24	48.5	49.5
25	28.4	29.3
26	25.4	19.1
27	32.0	27.6
28	49.6	42.5
29	23.6	15.8
30	33.8	26.8
31	20.5	19.7
32	21.5	17.5
33	30.2	39.0
34	24.1	20.0
35	building closed	
36	22.5	23.4
37	11.1	8.4
38	45.8	45.5
39	23.2	17.4
40	27.3	23.5
41	10.7	6.2

Source: Taken from the Elementary Demographic Data Report of the Lansing School District, 1980/81 and 1981/82.

Table A8.--Elementary-student family make-up report: Percentage of families reporting two parents within the home.

School Number	Elementary Family Make-Up (Percentage)	
	1980/81	1981/82
1	61.0	64.0
2	71.0	75.0
3	79.0	78.0
4	51.0	53.0
5	67.0	67.0
6	79.0	71.0
7	78.0	73.0
8	71.0	71.0
9	69.0	65.0
10	75.0	76.0
11	61.0	55.0
12	57.0	60.0
13	63.0	64.0
14	65.0	64.0
15	65.0	61.0
16	66.0	66.0
17	63.0	57.0
18	64.0	60.0
19	69.0	72.0
20	66.0	79.0
21	63.0	75.0
22	56.0	55.0
23	64.0	41.0
24	48.0	53.0
25	66.0	63.0
26	69.0	69.0
27	65.0	63.0
28	53.0	56.0
29	65.0	67.0
30	57.0	65.0
31	73.0	69.0
32	67.0	64.0
33	60.0	63.0
34	73.0	75.0
35	building closed	
36		65.0
37		75.0
38		49.0
39		66.0
40		63.0
41		73.0

Source: Taken from the "Elementary Demographic Data Report" of the Lansing School District, 1980/81 and 1981/82.

Table A9.--Elementary teacher absenteeism report, 1980/81.

School Number	Number of Teachers	Frequency	Mean Frequency	Number of Days Used	Mean Number of Days Used
1	12	95	7.9	117.5	9.8
2	14	93	6.6	133.5	9.5
3	10	41	4.1	40.0	4.0
4	9	53	5.9	110.5	12.3
5	9	43	4.8	52.0	5.8
6	10	38	3.8	57.5	5.8
7	10	77	7.7	97.0	9.7
8	7	32	4.6	37.0	5.3
9	20	58	5.8	99.0	9.9
10	13	111	8.5	149.0	11.5
11	9	66	7.3	230.0	25.6
12	8	62	7.8	80.0	10.0
13	12	87	7.3	110.5	9.2
14	9	32	3.6	43.0	4.8
15	7	54	7.7	84.0	12.0
16	7	30	4.3	58.5	8.4
17	7	42	6.0	58.0	8.3
18	8	27	9.6	81.5	10.2
19	12	77	6.4	101.5	8.5
20	7	33	4.7	83.0	11.9
21	7	34	4.9	61.0	8.7
22	15	76	5.1	153.0	10.2
23	10	58	5.8	82.0	8.2
24	9	41	4.6	125.0	13.9
25	14	67	4.8	93.5	6.7
26	18	102	5.7	197.0	10.9
27	9	55	6.1	79.5	8.8
28	6	26	4.3	44.5	7.4
29	11	71	6.5	142.0	12.9
30	13	54	4.2	95.0	7.3
31	14	64	4.6	117.5	8.4
32	12	68	5.7	102.0	8.5
33	11	96	8.7	123.0	11.2
34	12	58	4.8	72.0	6.0
35	6	25	4.2	64.0	10.7
36	9	33	3.7	47.5	5.3
37	14	86	6.1	114.5	8.2
38	9	55	6.1	94.5	10.5
39	10	70	7.0	110.0	11.0
40	12	45	3.8	78.0	6.5
41	15	59	3.9	151.0	10.1
TOTAL	426	2,394	5.6 AV	3,969.5	9.3

Source: Taken from Personnel Department records of the Lansing School District for 1980/81.

Table A10.--Elementary teacher absenteeism report, 1981/82.

School Number	Number of Teachers	Frequency	Mean Frequency	Number of Days Used	Mean Number of Days Used
1	12	66	5.5	75.0	6.3
2	14	71	5.1	111.5	8.0
3	10	43	4.3	48.5	4.9
4	10	38	3.8	46.0	4.6
5	8	42	5.3	48.0	6.0
6	9	38	4.2	54.5	6.1
7	9	59	6.6	87.0	9.7
8	6	26	4.3	66.5	11.1
9	9	31	3.4	107.0	11.9
10	13	80	6.2	143.0	11.0
11	10	48	4.8	79.0	7.9
12	7	41	5.9	112.5	16.1
13	12	82	6.8	115.0	9.6
14	9	23	2.6	26.0	2.9
15	7	41	5.9	67.5	9.6
16	6	28	4.7	80.5	13.4
17	7	35	5.0	58.0	8.3
18	8	44	5.5	134.0	16.8
19	11	52	4.7	65.0	5.9
20	6	36	6.0	115.0	19.2
21	6	42	7.0	52.0	8.7
22	14	72	5.1	91.0	6.5
23	9	55	6.1	71.5	7.9
24	9	35	3.9	47.0	5.2
25	14	62	4.4	91.5	6.5
26	18	111	6.2	184.5	10.3
27	9	38	4.2	54.0	6.0
28	7	28	4.0	35.5	5.1
29	10	57	5.7	80.0	8.0
30	11	49	4.5	69.5	6.3
31	13	44	3.4	74.0	5.7
32	11	80	7.3	105.0	9.5
33	11	85	7.7	129.0	11.7
34	11	55	5.0	130.5	11.9
35	building closed				
36	9	22	2.4	32.0	3.6
37	12	55	4.6	84.0	7.0
38	10	51	5.1	83.0	8.3
39	10	61	6.1	94.0	9.4
40	14	57	4.1	73.5	5.3
41	14	57	4.1	68.0	4.6
TOTAL	399	2,040	5.1 AV	3,290.0	8.2

Source: Taken from Personnel Department records of the Lansing School District for 1981/82.

APPENDIX B

INTERCORRELATIONS FOR SEVEN VARIABLES, BY GRADE

Table B1.--Intercorrelations for seven variables included in this study: Grade 1 Reading and Mathematics--1980/81.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.42*					
SMOB	-0.38*	0.83*				
PED	0.42*	-0.84*	-0.72*			
FAM	0.31*	-0.79*	-0.66*	0.61*		
FTA	-0.27	0.08	0.07	-0.03	-0.20	
TTDA	-0.30*	0.28*	0.15	-0.22	-0.39*	0.33*
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.25					
SMOB	-0.16	0.83*				
PED	0.24	-0.84*	-0.72*			
FAM	0.24	-0.79*	-0.66*	0.61*		
FTA	-0.32*	0.08	0.07	-0.03	-0.20	
TTDA	-0.34*	0.28*	0.15	-0.22	-0.39*	0.33*

*Significant at $\alpha < 0.05$.

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Table B2.--Intercorrelations for seven variables included in
this study: Grade 1 Reading and Mathematics--
1981/82.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.51*					
SMOB	-0.46*	0.75*				
PED	0.11	-0.26	-0.19			
FAM	0.58*	-0.74*	-0.46*	0.30*		
FTA	-0.04	-0.20	-0.22	0.01	0.21	
TTDA	0.14	0.07	0.01	-0.22	0.04	0.29*
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.38*					
SMOB	-0.33*	0.75*				
PED	0.07	-0.26	-0.19			
FAM	0.43*	-0.74*	-0.46*	0.30*		
FTA	-0.04	-0.20	-0.22	0.01	0.21	
TTDA	0.10	0.07	0.01	-0.22	0.04	0.29*

AFDC

*Significant at $\alpha < 0.05$.

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Table B3.--Intercorrelations for seven variables included in this study: Grade 2 Reading and Mathematics--1980/81.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.58*					
SMOB	-0.59*	0.83*				
PED	0.54*	-0.84*	-0.72*			
FAM	0.53*	-0.79*	-0.66*	0.61*		
FTA	-0.10	0.28*	0.44*	-0.34*	-0.22	
TTDA	-0.18	0.04	0.15	-0.09	-0.16	0.23
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.46*					
SMOB	-0.43*	0.83*				
PED	0.44*	-0.84*	-0.72*			
FAM	0.48*	-0.79*	-0.66*	0.61*		
FTA	-0.16	0.28*	0.44*	-0.34*	-0.22	
TTDA	-0.33*	0.04	0.15	-0.09	-0.16	0.23

*Significant at $\alpha < 0.05$.

Tabl

Read
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TTDA

Math
AFDC
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PED
FAM
FTA
TTDA

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Table B4.--Intercorrelations for seven variables included in this study: Grade 2 Reading and Mathematics--1981/82.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.50*					
SMOB	-0.43*	0.75*				
PED	0.12	-0.26	-0.19			
FAM	0.52*	-0.74*	-0.46*	0.30*		
FTA	-0.06	0.11	0.01	0.05	-0.10	
TTDA	0.36*	-0.14	-0.00	0.01	0.25	-0.01
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.40*					
SMOB	-0.15	0.75*				
PED	0.13	-0.26	-0.19			
FAM	0.45*	-0.74*	-0.46*	0.30*		
FTA	-0.21	0.11	0.01	0.01	-0.10	
TTDA	0.45*	-0.14	0.00	0.05	0.25	-0.01

*Significant at $\alpha < 0.05$.

Table B5.--Intercorrelations for seven variables included in this study: Grade 3 Reading and Mathematics--1980/81.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.42*					
SMOB	-0.30*	0.83*				
PED	0.46*	-0.84*	-0.72*			
FAM	0.40*	-0.79*	-0.66*	0.61*		
FTA	-0.22	0.20	0.33*	-0.17	-0.15	
TTDA	-0.36*	0.23	0.27*	-0.23	-0.31*	0.58*
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.30*					
SMOB	-0.15	0.83*				
PED	0.23	-0.84*	-0.72*			
FAM	0.40*	-0.79*	-0.66*	0.61*		
FTA	0.02	0.20	0.33*	-0.17	-0.15	
TTDA	-0.23	0.23	0.27*	-0.23	-0.31*	0.58*

*Significant at $\alpha < 0.05$.

Table B6.--Intercorrelations for seven variables included in this study: Grade 3 Reading and Mathematics-1981/82.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.41*					
SMOB	-0.49*	0.75*				
PED	0.31*	-0.26	-0.19			
FAM	0.32*	-0.74*	-0.46*	0.30*		
FTA	-0.17	0.05	-0.05	-0.03	-0.17	
TTDA	-0.34*	-0.04	-0.04	-0.19	0.00	0.51*
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.20					
SMOB	-0.19	0.75*				
PED	0.23	-0.26	-0.19			
FAM	0.11	-0.74*	-0.46*	0.30*		
FTA	-0.25	0.05	-0.05	-0.03	-0.17	
TTDA	-0.29*	-0.04	-0.04	-0.19	0.00	0.51*

*Significant at $\alpha < 0.05$.

Table B7.--Intercorrelations for seven variables included in this study: Grade 4 Reading and Mathematics--1980/81.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.44*					
SMOB	-0.24	0.85*				
PED	0.41*	-0.84*	-0.72*			
FAM	0.35*	-0.79*	-0.67*	0.62*		
FTA	0.25	-0.14	-0.15	0.21	0.16	
TTDA	-0.14	0.32*	0.23	-0.21	-0.27	0.36*
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.20					
SMOB	0.04	0.85*				
PED	0.16	-0.84*	-0.71*			
FAM	0.18	-0.79*	-0.67*	0.62*		
FTA	0.04	-0.14	-0.15	0.21	0.16	
TTDA	-0.16	0.32*	0.23	-0.21	-0.27	0.36*

*Significant at $\alpha < 0.05$.

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Table B8.--Intercorrelations for seven variables included in this study: Grade 4 Reading and Mathematics--1981/82.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.41*					
SMOB	-0.28*	0.75*				
PED	0.16	-0.26	-0.21			
FAM	0.23	-0.75*	-0.46*	0.31*		
FTA	0.08	0.07	0.14	0.17	0.05	
TTDA	0.28*	-0.01	0.18	-0.07	-0.01	0.78*
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.18					
SMOB	0.14	0.75*				
PED	0.26	-0.26	-0.21			
FAM	0.10	-0.74*	-0.46*	0.31*		
FTA	0.12	0.07	0.14	0.17	0.05	
TTDA	0.30*	-0.01	0.18	-0.07	-0.01	0.78*

*Significant at $\alpha < 0.05$.

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Table B9.--Intercorrelations for seven variables included in this study: Grade 5 Reading and Mathematics--1980/81.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.14					
SMOB	-0.16	0.83*				
PED	0.16	-0.84*	-0.70*			
FAM	0.16	-0.83*	-0.67*	0.61*		
FTA	0.40*	-0.29	-0.19	0.18	0.17	
TTDA	0.13	0.07	0.02	0.00	-0.15	0.65*
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.12					
SMOB	-0.05	0.83*				
PED	0.14	-0.84*	-0.70*			
FAM	0.15	-0.82*	-0.67*	0.61*		
FTA	0.42*	-0.29	-0.19	0.18	0.17	
TTDA	0.17	0.07	0.02	0.00	-0.15	0.65*

*Significant at $\alpha < 0.05$.

Table B10.--Intercorrelations for seven variables included in
this study: Grade 5 Reading and Mathematics--
1981/82.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.52*					
SMOB	-0.35*	0.72*				
PED	0.01	-0.27	-0.13			
FAM	0.50*	-0.73*	-0.42*	0.28		
FTA	0.06	-0.20	0.03	-0.01	0.13	
TTDA	0.10	-0.22	0.08	-0.02	0.25	0.38*
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.46*					
SMOB	-0.27	0.72*				
PED	0.23	-0.27	-0.13			
FAM	0.37*	-0.73*	-0.42*	0.28		
FTA	0.23	-0.20	0.03	-0.01	0.13	
TTDA	0.15	-0.22	0.08	-0.02	0.25	0.38*

*Significant at $\alpha < 0.05$.

Table B11.--Intercorrelations for seven variables included in
this study: Grade 6 Reading and Mathematics--
1980/81.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.48*					
SMOB	-0.42*	0.83*				
PED	0.51*	-0.84*	-0.71*			
FAM	0.37*	-0.83*	-0.68*	0.61*		
FTA	0.08	0.04	0.12	-0.12	-0.15	
TTDA	0.02	0.20	0.20	-0.09	-0.33*	0.56*
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.37*					
SMOB	-0.28	0.83*				
PED	0.34*	-0.84*	-0.71*			
FAM	0.31*	-0.83*	-0.68*	0.61*		
FTA	-0.03	0.04	0.12	-0.12	-0.15	
TTDA	0.00	0.20	0.20	-0.09	-0.33*	0.56*

*Significant at $\alpha < 0.05$.

Table B12.--Intercorrelations for seven variables included in
this study: Grade 6 Reading and Mathematics--
1981/82.

Reading						
	Read	AFDC	SMOB	PED	FAM	FTA
Read						
AFDC	-0.24					
SMOB	-0.20	0.72*				
PED	0.21	-0.27	-0.14			
FAM	0.15	-0.73*	-0.42*	0.28		
FTA	-0.03	-0.21	-0.04	0.03	0.09	
TTDA	0.12	-0.18	0.02	-0.13	0.22	0.63*
Mathematics						
	Math	AFDC	SMOB	PED	FAM	FTA
Math						
AFDC	-0.27					
SMOB	-0.23	0.72*				
PED	0.29	-0.27	-0.14			
FAM	0.26	-0.73*	-0.42*	0.28		
FTA	-0.09	-0.21	-0.04	0.03	0.09	
TTDA	0.15	-0.18	0.02	-0.13	0.22	0.63*

*Significant at $\alpha < 0.05$.

APPENDIX C

EMPLOYEE TIME AND ABSENCE RECORD

INDIVIDUAL DATA - Fill in for each employee

NAME LAST, FIRST, INITIAL (Type or Print)										SOCIAL SECURITY NO.										POSITION										BUILDING																																																																																																																																																																																																																					
EMPLOYEE SIGNATURE										SUPERVISOR SIGNATURE										DATE SIGNED										ADVISORY PERSONNEL APPROVAL																																																																																																																																																																																																																					
REGULAR TIME - Hourly Employees only										ABSENCES - Use for All Employees										PERSONNEL DEPT. - Use only																																																																																																																																																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">DATE</th> <th colspan="2">START TIME</th> <th colspan="2">FINISH TIME</th> <th colspan="2">HOURS WORKED</th> </tr> <tr> <th>Mo</th> <th>Day</th> <th>Yr.</th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr><td colspan="8" style="text-align: center; height: 100px;">1</td></tr> <tr><td colspan="8">TOTAL</td></tr> </tbody> </table>										DATE		START TIME		FINISH TIME		HOURS WORKED		Mo	Day	Yr.						1								TOTAL								<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">DATE</th> <th colspan="2">HOURS</th> <th colspan="2">AP</th> <th colspan="2">NAME OF SUBSTITUTE</th> </tr> <tr> <th>Mo</th> <th>Day</th> <th>Yr.</th> <th>ASSENT</th> <th>W/O</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr><td colspan="8" style="text-align: center; height: 100px;">2</td></tr> <tr><td colspan="8">TOTAL</td></tr> </tbody> </table>										DATE		HOURS		AP		NAME OF SUBSTITUTE		Mo	Day	Yr.	ASSENT	W/O				2								TOTAL								<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">NO</th> <th colspan="2">CHG</th> <th colspan="2">SICK</th> <th colspan="2">PRES</th> <th colspan="2">VAC</th> <th colspan="2">DOCK</th> </tr> </thead> <tbody> <tr><td colspan="12" style="height: 100px;"></td></tr> </tbody> </table>										NO		CHG		SICK		PRES		VAC		DOCK																																																																																																																																											
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BIBLIOGRAPHY

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- "Absent Teachers: Another Handicap for Students." The Practitioner (National Association of Secondary School Principals) 5 (May 1979): 1-5.
- "Absentee Teachers Boost School Costs." Lansing (Michigan) State Journal, November 1981.
- Academy for Educational Development. Report on Teacher Absenteeism in the Public Schools of Illinois to State Board of Education (Illinois Office of Education). Indianapolis: The Academy for Educational Development, Public Policy Division, July 1977.
- Allen, Robert F., and Higgins, Michael. "The Absenteeism Culture: Becoming Attendance Oriented." Personnel 56 (January-February 1979): 30-34.
- American Association of School Administrators. Time on Task, Using Instructional Time More Effectively. Arlington, Va.: American Association of School Administrators, 1982.
- Bamber, Chrissie. Student and Teacher Absenteeism. Fastback 126. Bloomington, Ind.: Phi Delta Kappa Educational Foundation, 1979.
- Beauchamp, George A., and Conran, Patricia C. "Longitudinal Study in Curriculum Engineering-VI." Paper presented at the annual meeting of the American Educational Research Association, San Francisco, California, April 1976. (Mimeographed.)
- Breaugh, James A. "Predicting Absenteeism From Prior Absenteeism and Work Attitudes." Journal of Applied Psychology 66 (1981): 555-60.
- Bundren, Dorence L. "The Influence of Situational and Demographic Factors on the Absentee Patterns of Teachers." Ph.D. dissertation, University of Southern California, 1974.
- Bureau of National Affairs. "Job Absence and Turnover Second Quarter 1983." Bulletin to Management, September 8, 1983, p. 1.
- Cruikshank, George E. "No-Shows at Work: High Priced Headache." Nation's Business (September 1976): 37.

- Drake, Jackson M. "Making Effective Use of the Substitute Teacher: An Administrative Opportunity." NASSP Bulletin (September 1981): 74.
- Educational Research Service. Employee Absenteeism: A Summary of Research. Arlington, Va.: Educational Research Service, 1980.
- Edwards, Gregor Q. "Teacher Absenteeism in Senior High Schools: Economic, Educational, and Human Costs of Teacher Stress." Dissertation Abstracts International 43 (July 1982): 29-A.
- Elliott, Peggy G., and Manlove, Donald C. "The Cost of Skyrocketing Teacher Absenteeism." Phi Delta Kappan 59 (December 1977): 209-10.
- Feinberg, Mortimer R. "New Focus on Absenteeism." Restaurant Business, February 1, 1981, p. 82.
- Foster, Seymour D. "An Investigation of Selected Factors in Schools With High Versus Low Teacher Absenteeism in a New York Community School District." Ed.D. dissertation, Fordham University, 1977.
- Gardner, Eric F.; Rudman, Herbert C.; Karlson, Bjorn; and Merwin, Jack C. Stanford Achievement Test (Form A). New York: The Psychological Corporation, 1974.
- Goodman, Victor B. "Teacher Absenteeism, Stress in Selected Elementary Schools: An Assessment of Economic and Human Costs." Ed.D. dissertation, University of California, Los Angeles, 1980.
- Harnischfeger, Annegret, and Wiley, David E. "Achievement Test Scores Drop--So What?" Educational Researcher (March 1976): 5-12.
- _____. "Schooling Cutbacks and Achievement Declines: Can We Afford Them?" Administrator's Notebook (The University of Chicago) 24 (1975).
- Hayes, James L. "Absenteeism, The Death of Productivity." Credit and Financial Management (December 1981): 25.
- "Job Absence and Turnover." Bulletin to Management (The Bureau of National Affairs, Inc.), December 16, 1982, p. 2.
- Johnson, Ronald D., and Peterson, Tim O. "Absenteeism or Attendance: Which Is Industry's Problem?" Personnel Journal (November 1975): 568.
- Kerlinger, Fred N. Foundations of Behavioral Research. 2nd ed. New York: Holt, Rinehart and Winston, Inc., 1973.

Kopelman, Richard E.; Schneller, George O. IV; and Silver, John J., Jr. "Parkinson's Law and Absenteeism: A Program to Rein in Sick Leave Costs." Personnel Administrator (May 1981): 57.

Kuzmits, Frank E. "How Much Is Absenteeism Costing Your Organization." The Personnel Administrator (June 1979): 29-32.

"Lansing School District Budget Projection 1983/84." Compiled by the Finance Department, Lansing School District, June 1983.

"Lansing School District Master Agreement with Lansing School Employees Association." Ratified for the years 1979 through 1981.

"Lansing School District Report of Sick and Personal Leave Days Used 1981/82 Through 1977/78." Compiled by the Employee Relations Department, Lansing School District.

Leon, Carol Boyd. "Employed But Not at Work: A Review of Unpaid Absences." Monthly Labor Review (November 1981): 18-22.

Lewis, James, Jr. "Using a Computer to Monitor Teacher Absenteeism Can Save Schools Money and Increase the Time Teachers Spend in Class." The American School Board Journal (December 1982): 30-32.

Lezotte, Lawrence W., and Passalacqua, Joseph. "Individual School Buildings--Accounting for Differences in Measured Pupil Performance." Urban Education (October 1978): 283-91.

Master Agreement Between the Lansing Schools Education Association and the Lansing School District for 1981 and 1984. Article XV, p. 34.

McIntire, Ronald G., and Hughes, Larry W. "Houston Program Trains Effective Substitutes." Phi Delta Kappan (June 1982): 702.

Nie, Norman H., et al. Statistical Package for the Social Sciences. 2nd ed. New York: McGraw-Hill Book Co., 1975.

Olson, M. N. "Identifying Quality in School Classrooms: Some Problems and Some Answers." Central Ideas 21 (February 1971): 6.

Pennsylvania School Boards Association. "Teacher Absenteeism: Professional Staff Absence Study." Harrisburg: Pennsylvania School Boards Association, October 1978.

Prentice-Hall Editorial Staff. Absenteeism and Lateness. Prepared for the American Society for Personnel Administration. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1981.

Rawson, D. V. "Increasing the Effectiveness of Substitute Teachers." National Association of Secondary School Principals Bulletin (September 1981): 81.

Robinson, Glenn. "Foreword." In Educational Research Service, Employee Absenteeism: A Summary of Research. Arlington, Va.: Educational Research Service, Inc., 1980.

Rothman, Miriam. "Can Alternatives to Sick Pay Plans Reduce Absenteeism?" Personnel Journal (October 1981): 788.

Scott, Dow, and Markham, Steve. "Absenteeism Control Methods: A Survey of Practices and Results." Personnel Administrator 27 (June 1982): 73-76.

Steers, Richard M., and Rhodes, Susan R. "Major Forces on Employee Attendance: A Process Model." Journal of Applied Psychology 63 (1978): 391-407.

Taylor, Daniel E. "Absences From Work Among Full-Time Employees." Monthly Labor Review (March 1981): 68.

_____. "Absent Workers and Lost Work Hours, May 1978." Monthly Labor Review (August 1979): 49.

"Teacher Absenteeism in New York City and the Cost Effectiveness of Substitute Teachers." State of New York, Office of Education Performance Review. Albany: New York Office of Education, January 1974.

"Teacher Absenteeism: Professional Staff Absence Study." Harrisburg: Pennsylvania School Boards Association, October 1978.

Wiley, David E. "Another Hour, Another Day: Quantity of Schooling, a Potent Path for Policy." In Schooling and Achievement in American Society. Edited by William H. Sewell, Robert M. Hauser, and David L. Featherman. New York: Academic Press, 1975.

_____, and Harnischfeger, Annegret. "Explosion of a Myth: Quantity of Schooling and Exposure to Instruction, Major Educational Vehicles." Educational Researcher 3 (April 1974): 7-12.

Winkler, Donald R. "The Effects of Sick Leave Policy on Teacher Absenteeism." Industrial and Labor Relations Review 33 (January 1980): 232.

Zafirau, James S. "A Study of Attendance Issues in a Desegregating School District." March 15, 1982. (Mimeographed.)

Zager, Robert. "Employees Miss Less Work Time." Resource (American Association for Personnel Administration) (February 1983): 12.

Zimet, Melvin. Decentralization and School Effectiveness. New York: Teachers College, Columbia University, 1973.

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